

*Captain Graham Hamond, Royal Navy, 1797. H. M. S. Echo-*

# CHANNEL PILOT,

COMPREHENDING THE

HARBOURS, BAYS, AND ROADS

IN THE

*BRITISH CHANNEL:*

WITH

THE ENGLISH AND FRENCH COASTS,

FROM THE

*THAMES MOUTH TO THE BAY OF BISCAY;*

INCLUDING THE

## NORTH SEA.

FROM OBSERVATIONS AND ACTUAL SURVEYS.

---

BY JOHN STEPHENSON AND GEORGE BURN,  
*MASTERS IN THE ROYAL NAVY, AND OTHER EXPERIENCED NAVIGATORS.*

---

*On Thirty Two Large Plates.*

CONTAINING

- |   |   |
|---|---|
| 1. The British Channel, by J. Stephenson.   | 15. Coast of Devon, from Exmouth Bar to Stoke Point, including Torbay, &c. * <i>Tor Bay by Capt. Knight</i> |
| 2. Mouth of the Thames and its Entrances, by J. Grosvener &c.   | 16. Plymouth Sound, Hamoaze, and Catwater.  |
| 3. Harwich Harbour, by G. Burn.   | 17. An Eye Sketch of the Entrance of Yealme River, with the Depths of Water, &c. &c.                        |
| 4. East Swale, by J. Stephenson.  | 18. Fowey Road and Harbour, by Capt. Cook, the famous Circumnavigator.                                      |
| 5. Sands and Channels, from the Nore to Margate Roads, by J. Grosvener.   | 19. Polkerris and Mevagizey Bays.   |
| 6. The Downs, by J. Rofs, a Trinity Pilot.  | 20. Falmouth and Carreg Road, with Helford Sound  |
| 7. An Actual Survey of the Varne and Ridge off Dover, taken by Order of Admiral Macbride, in 1793, by Christopher Collins, Master of His Majesty's Ship the Cumberland. | 21. Mount's Bay, with the adjacent Coast from the Lizard to Cape Cornwall.                                  |
| 8. Dungeness, by J. Stephenson.   | 22. The Chops of the Channel to the South of Scilly, &c.  |
| 9. Rye Harbour.   | 23. Scilly Islands, with their Soundings, Channels, and Sailing Marks.                                      |
| 10. Isle of Wight, Spithead, Portsmouth Harbour, and the adjacent Coasts from Arundel Haven to St. Aldan's Head, revised in 1793, by G. Burn.                           | 24. Milford Haven, from a Survey by order of Government.  |
| 11. Portland Isle, Roads, Race, &c.   | 25. North Sea, by Hammond, 2 large Sheets.  |
| 12. A General Chart of Guernsey, Jersey, and Alderney, by Capt. Dobree.   | 26. The Harbour and River of Waterford, with the Bay of Tramore.  |
| 13. Guernsey Island, with those of Sark, Herm, and Jethou.  | 27. A Correct Tide Table for the British Channel, &c.   |
| 14. Jersey Island, by Capt. Clement L'Empriere.   |   |

L O N D O N:

PRINTED AND PUBLISHED BY ROBERT LAURIE AND JAMES WHITTLE, No. 53, FLEET STREET,

( SUCCESSORS TO THE LATE MR. ROBERT SAYER. )

[Price £.1. 11. 6. Half Bound, with a Book of SAILING DIRECTIONS.]

1795.

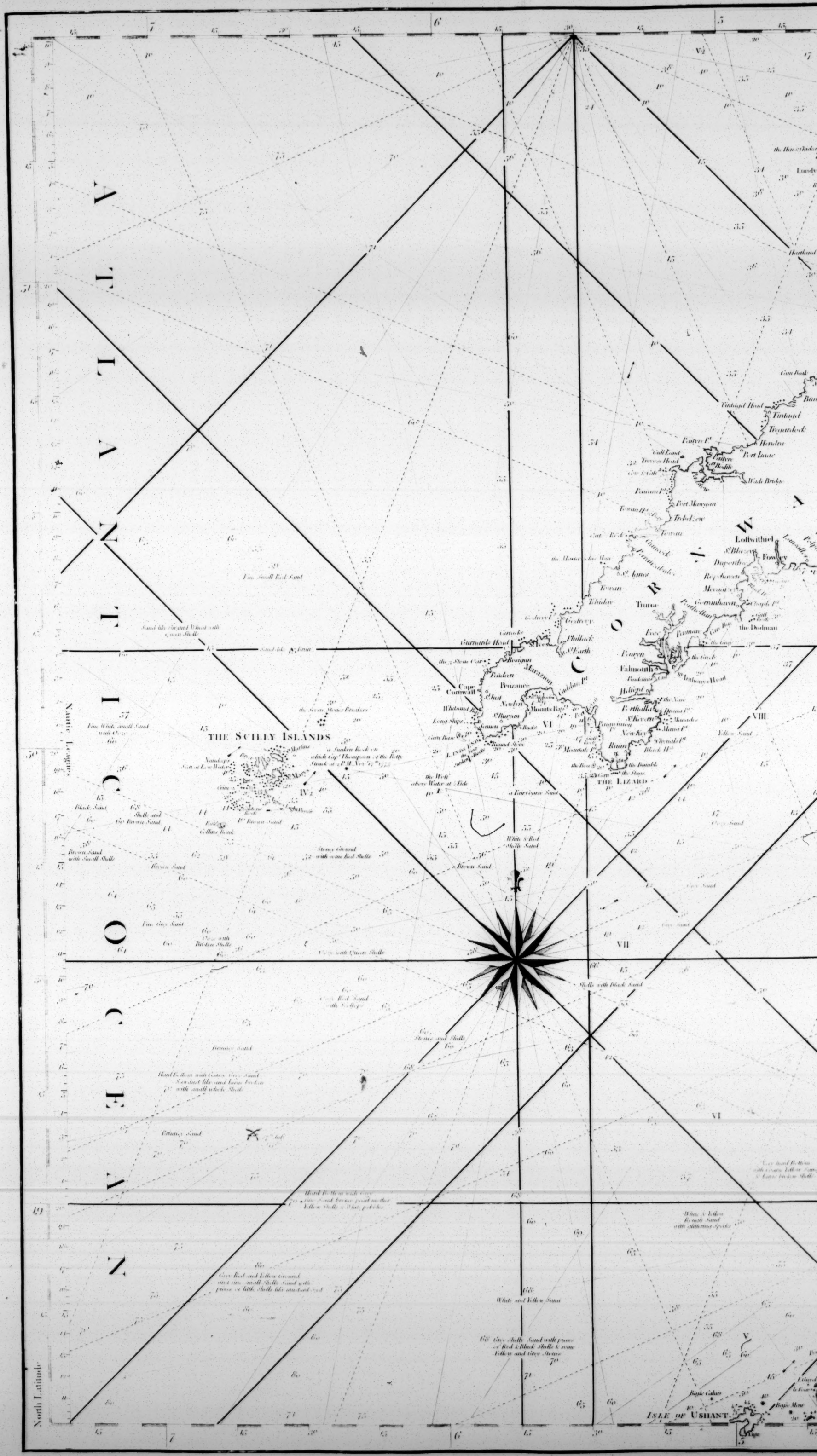


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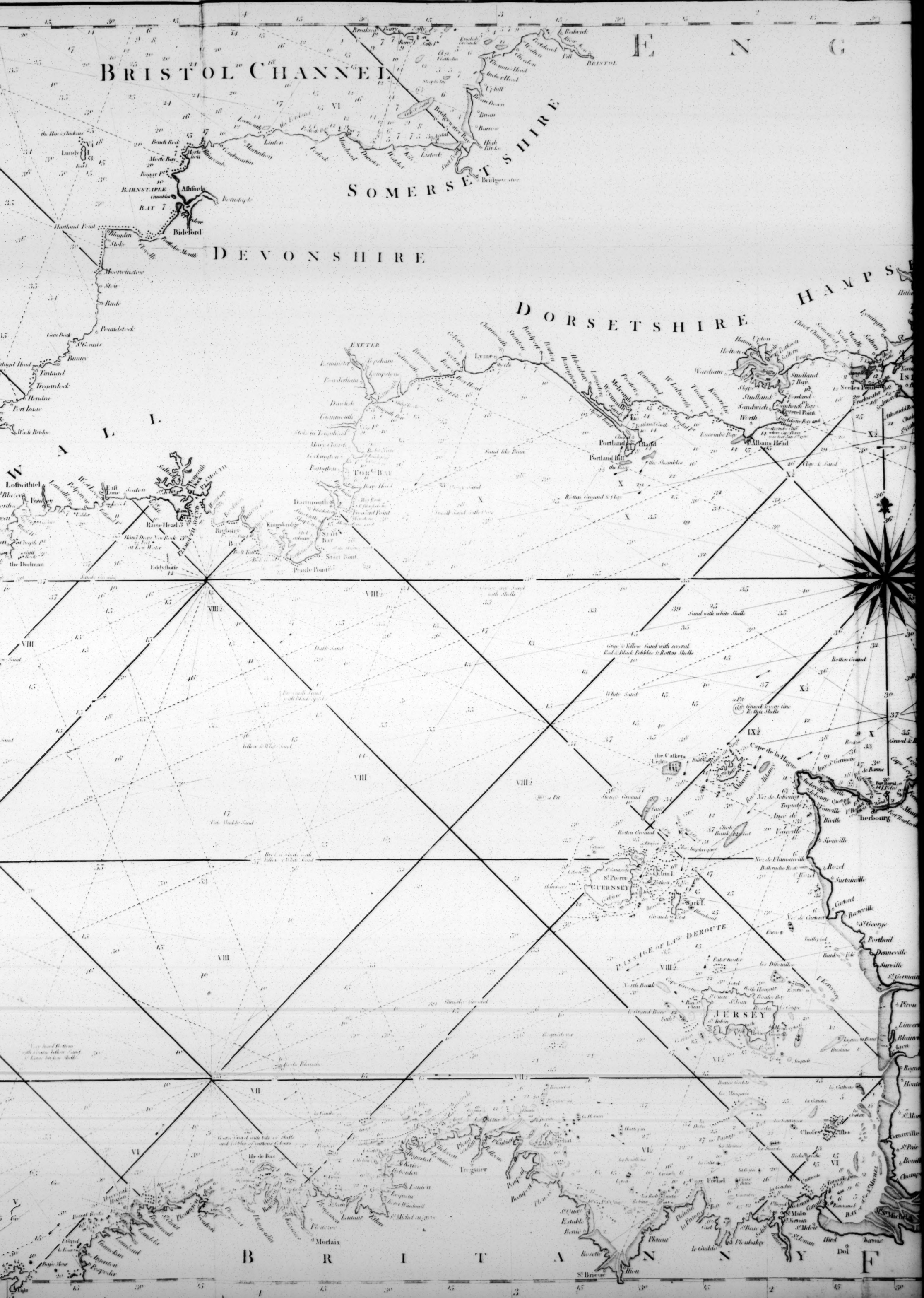




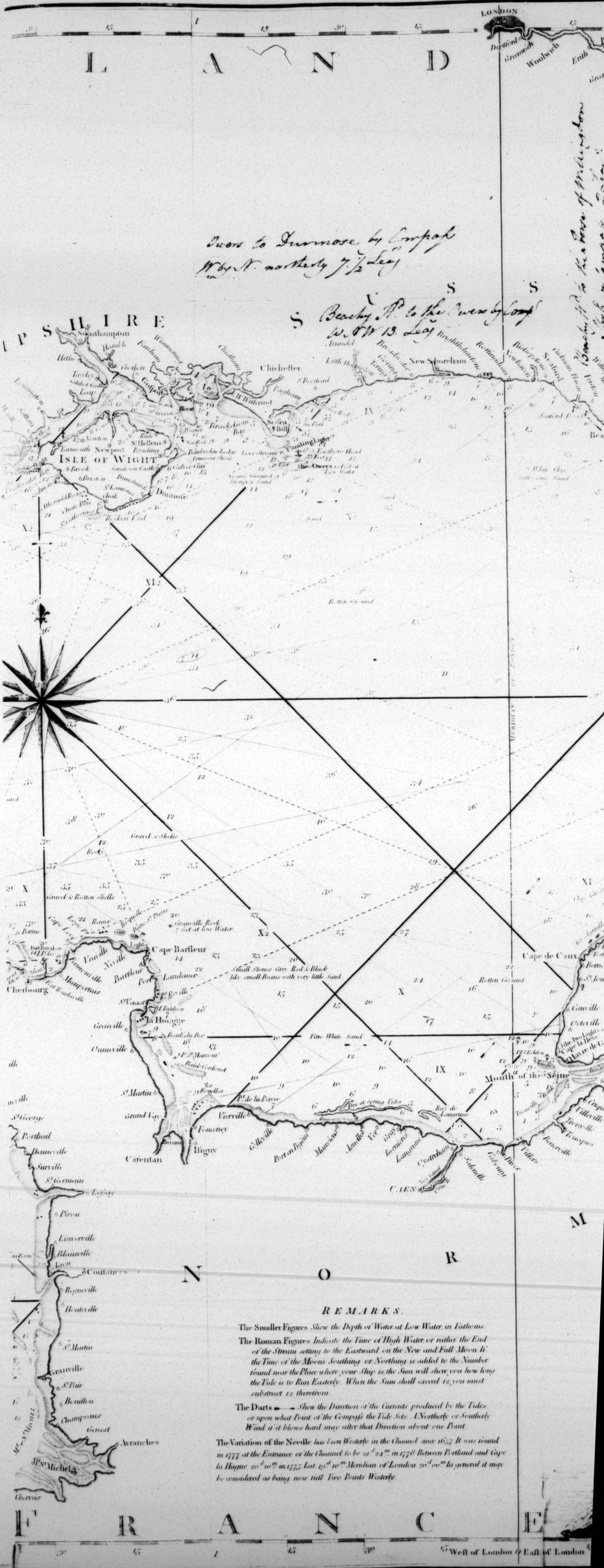












*Passes to Surmorse by Compa*  
*W by N. northerly 7 1/2 Leag*

*S Beachy. R. to the West by Compa*  
*W. 8 1/2 Leag*

*Beachy R. to the West of Millington*  
*W. 8 1/2 Leag*

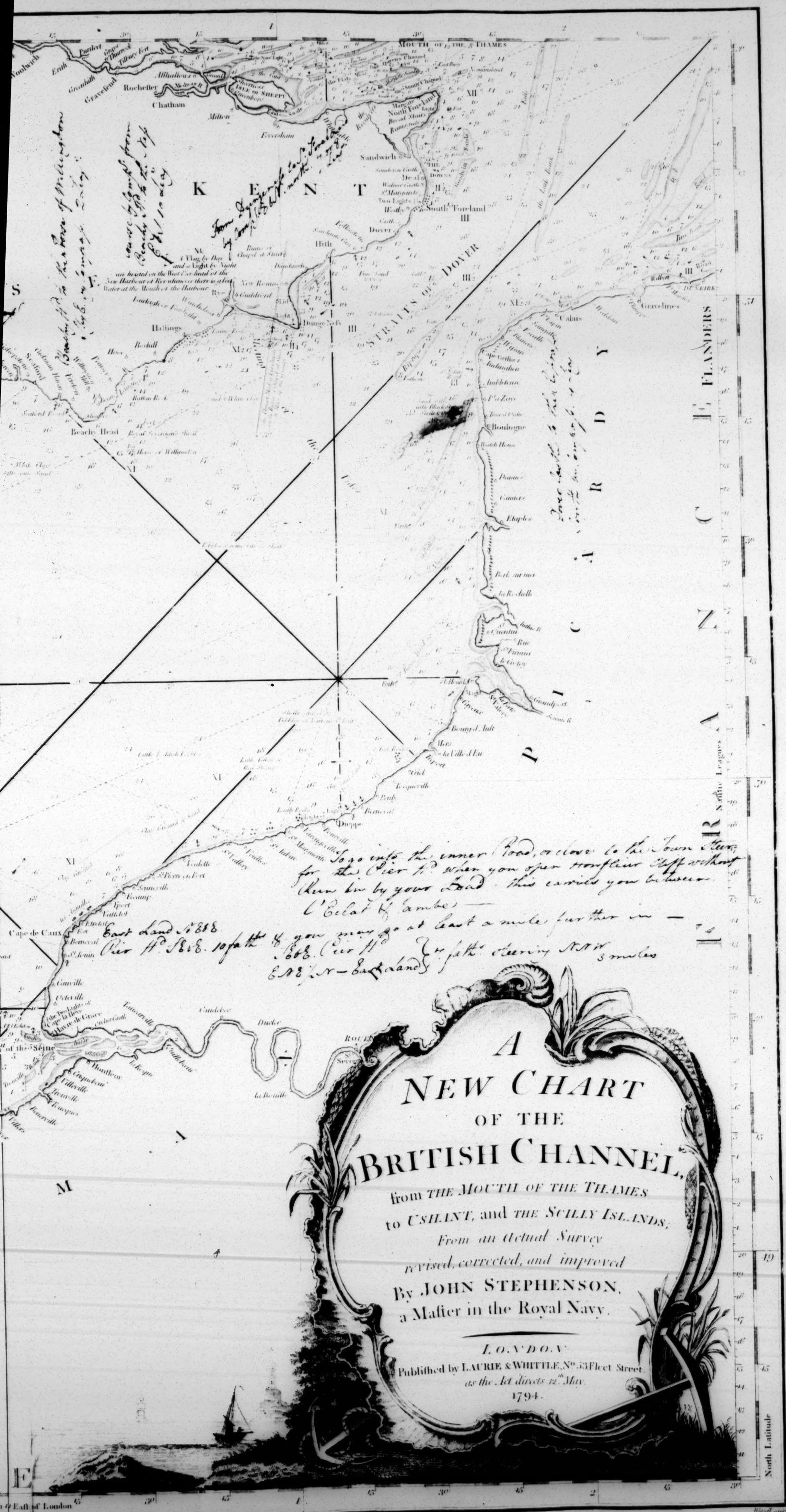
REMARKS.

The Smaller Figures Show the Depth of Water at Low Water in Fathoms.  
The Roman Figures Indicate the Time of High Water or rather the End of the Stream setting to the Eastward on the New and Full Moon If the Time of the Moon Scantling or Nothing is added to the Number found near the Place where your Ship is the Sun will show you how long the Tide is to Run Easterly. When the Sun shall exceed 12 you must subtract 12 therefrom.

The Darts — Show the Direction of the Currents produced by the Tides or upon what Point of the Compass the Tide Sets. N. Northerly or Southerly W. and it blows hard may alter that Direction about one Point.

The Variation of the Needle has been Westerly in the Channel since 1657 It was found in 1777 at the Entrance of the Channel to be 21° 24' in 1778 Between Portland and Cape la Hague 20° 10' in 1775 Lat 49° 10' Meridian of London 20° 00' In general it may be considered as being now full Two Points Westerly.





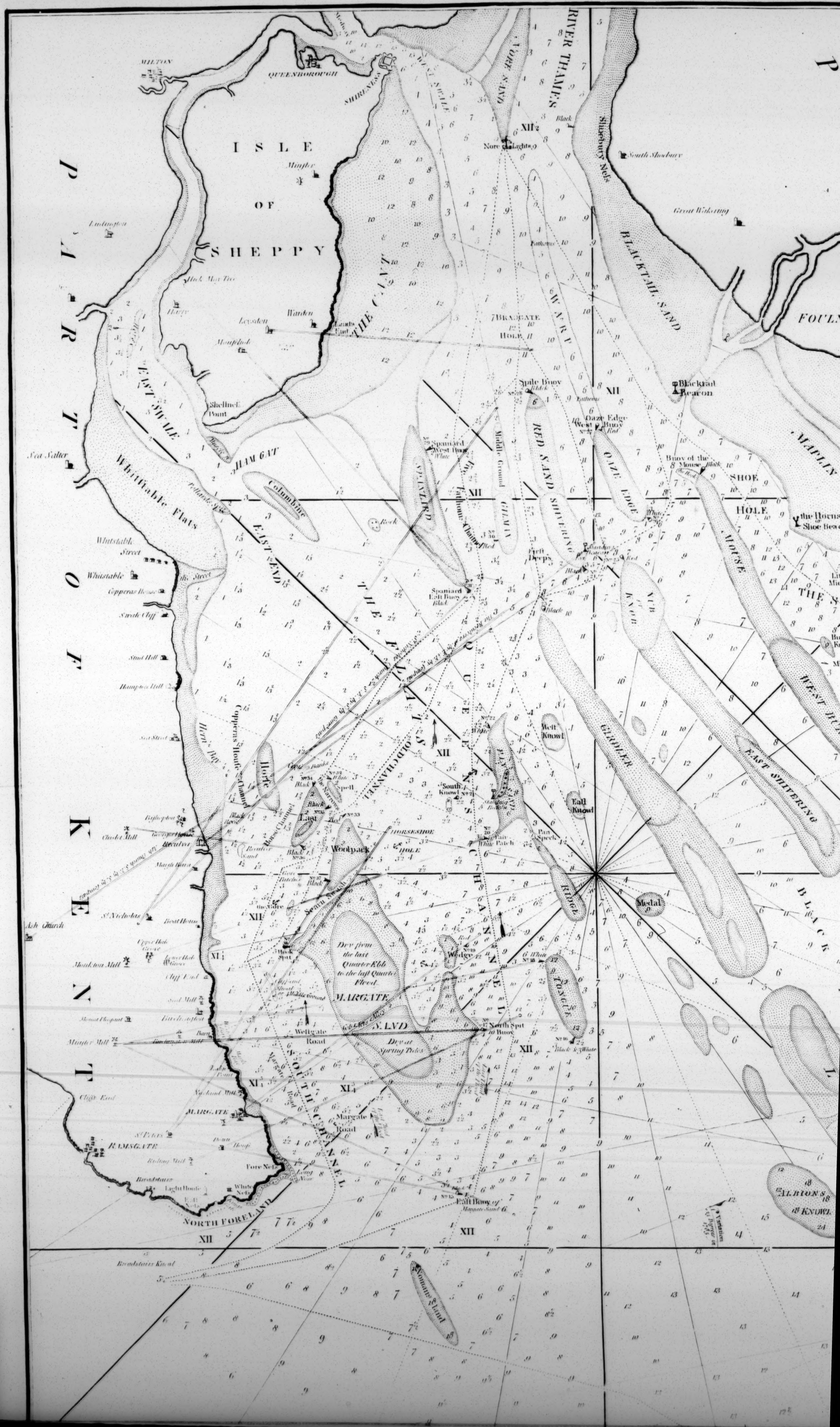












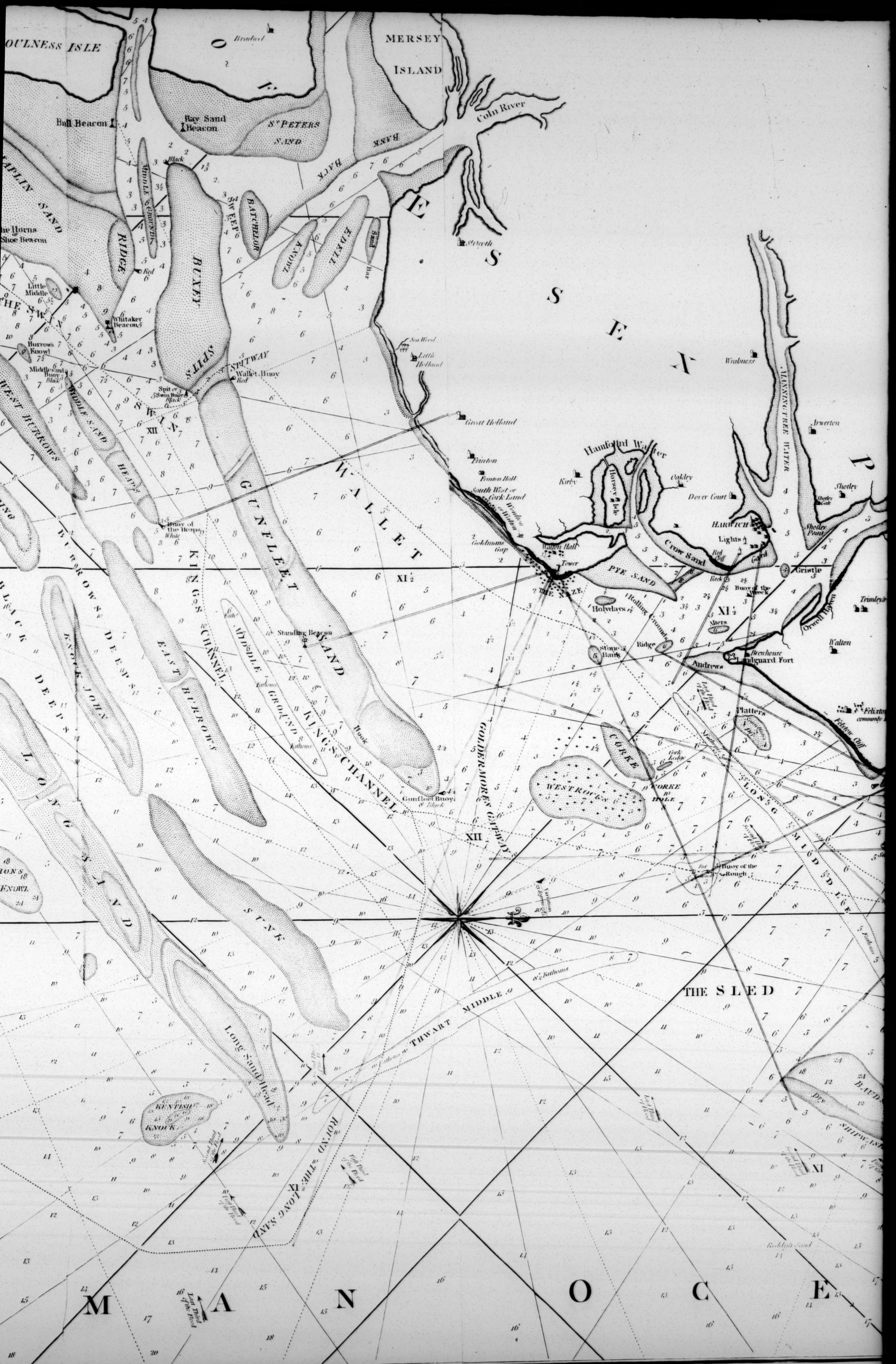








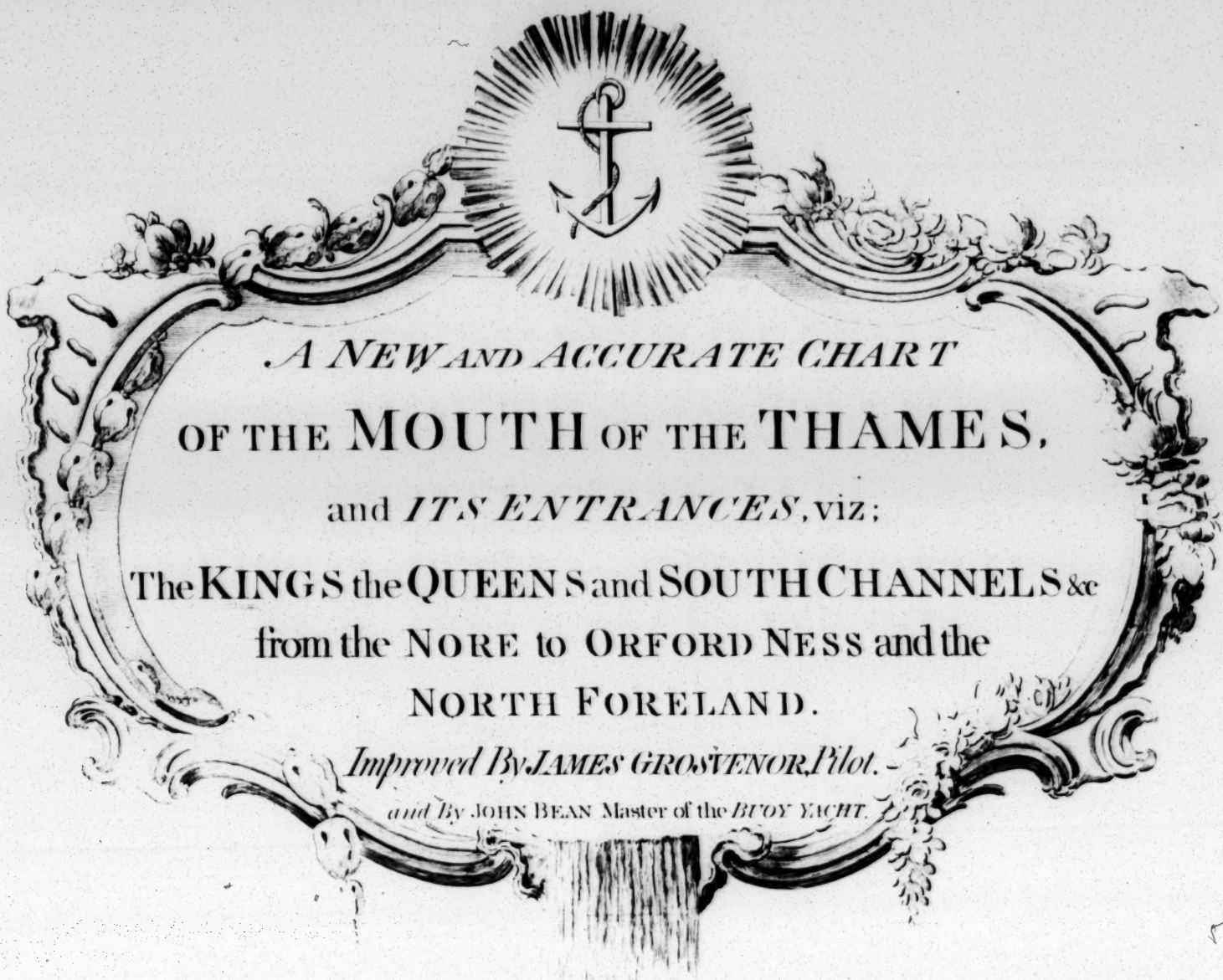












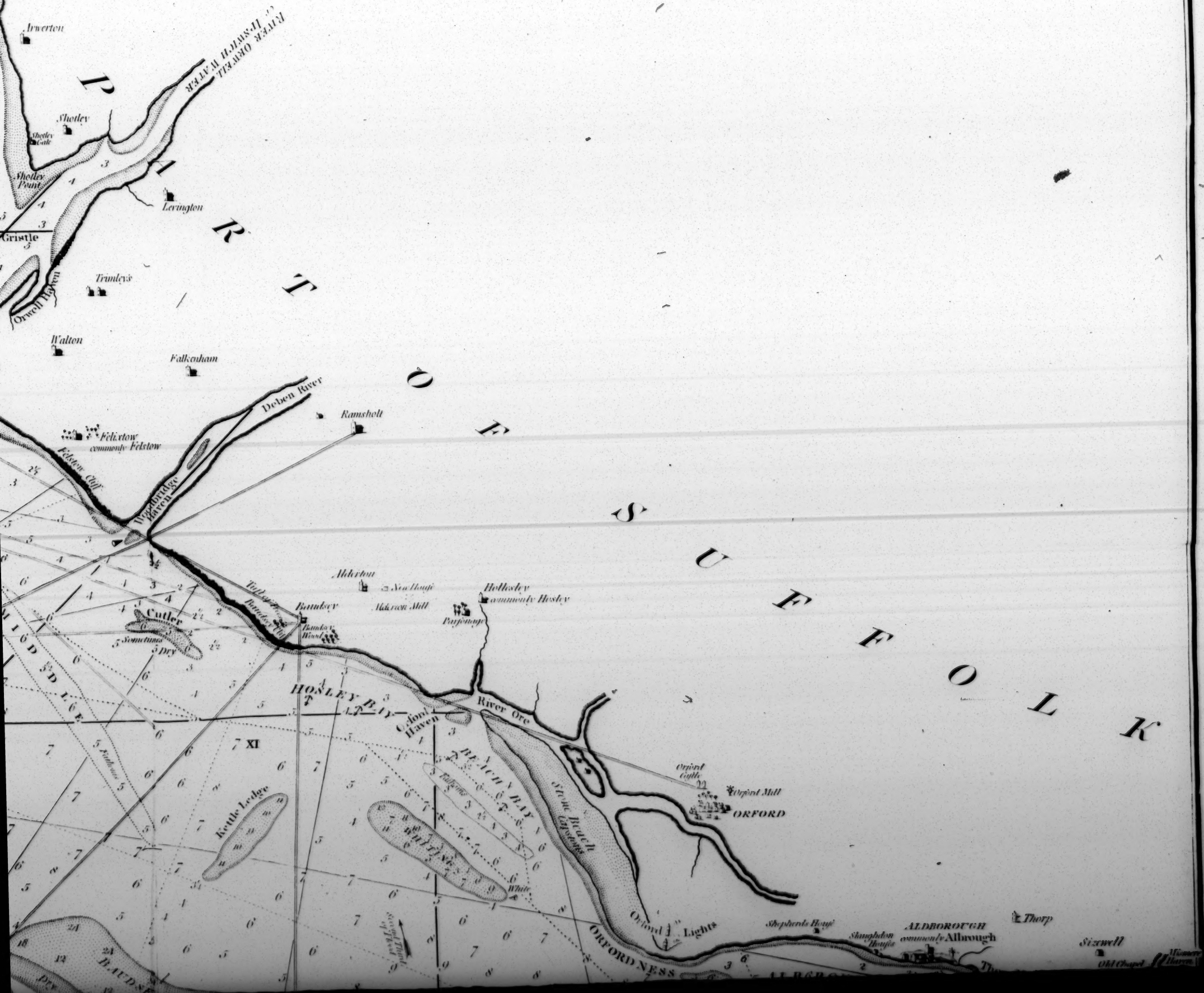
L O N D O N .

Published by LAURIE & WHITTLE, 53 Fleet Street,  
12 May 1794.

Scale of four Nautic Leagues or Twelve Miles.



N.B. The Soundings on the Sands are in Feet.  
The Roman Figures denote the Time of High Water.









and *ITS ENTRANCES*, viz;  
 The **KING S** the **QUEEN S** and **SOUTH CHANNEL S** &c  
 from the **NORE** to **ORFORD NESS** and the  
**NORTH FORELAND.**

*Improved By* **JAMES GROSVENOR, Pilot.**

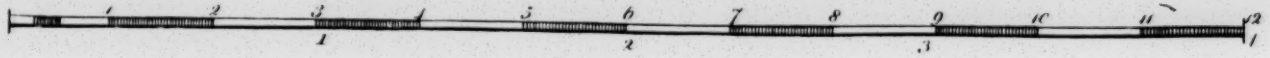
and By **JOHN BEAN** Master of the *BUOY YACHT.*

**L O N D O N.**

Published by **L. AURIE & WHITTLE**, 53 Fleet Street.

12. May. 1794.

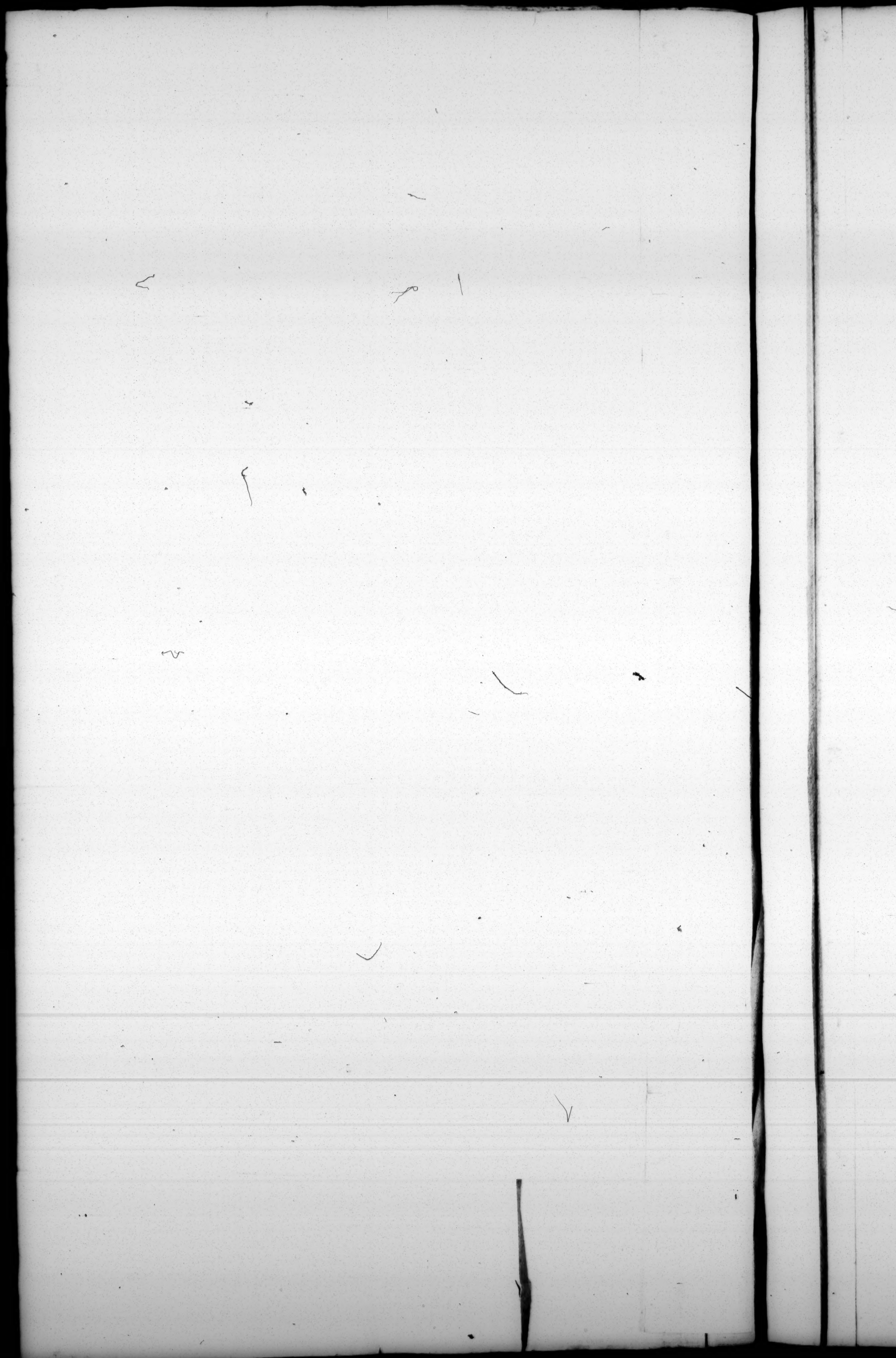
Scale of four Nautic Leagues or Twelve Miles.



*N.B. The Soundings on the Sands are in Feet.  
 The Roman Figures denote the Time of High Water.*













Earl of Galloway's  
Belvedere  
at Widdowshare

Scale of Three Miles.

# PART OF

SANDWICH  
St Clements Church

Winsborough Church

Winsborough Mill

Langdon Church

Norborne Church

Hongham Church

Sholden Church

Upper Deal Mill

Ringwood

Upper Deal Church

Lower Deal Mill

West Cliff

Martins Mill

Upper Light House

St. Margarets Church

Eastmost or  
Lower Light House

Sea Gate

Sampson House

Old Stairs Bay

Margaret's Mill

the Landing Mark for the Inner Channel

King'sdown

Old Mill

Walmer Castle

Deal Castle

Deal Town

St. Margaret's Church

the Bell Road for Small Ships

the Tide Gauge

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Full (S.S.W. or  
Change) 11<sup>h</sup>

Full (S.S.E. or  
Change) 11<sup>h</sup>

Full (S.W. or  
Change) 11<sup>h</sup>

## DOWNS

THE GOODWIN  
THE BACK OF  
OF THE GO

From the Bay  
Dover to Deal  
one Mile and a half  
and from the South Foreland to  
Deal one Mile and a half



Published 12<sup>th</sup> Nov<sup>r</sup> 1795, by LAURIE & WHITTLE, N<sup>o</sup> 53 Fleet Street.

The Eastmost or Lower Light house on the South Foreland, is about as much open to the Left hand of Leathercoat Point as it is to the Right hand of the South Foreland, or apparently midway between both Points.

*Lea.* The Bearing is S. W. by W. ½ W. per Compass.

The Tower of St. Peter's Church is rather more than its breadth open to the left hand of Broadstairs Windmill. Bearing N.W. by N. & W. per Compass.

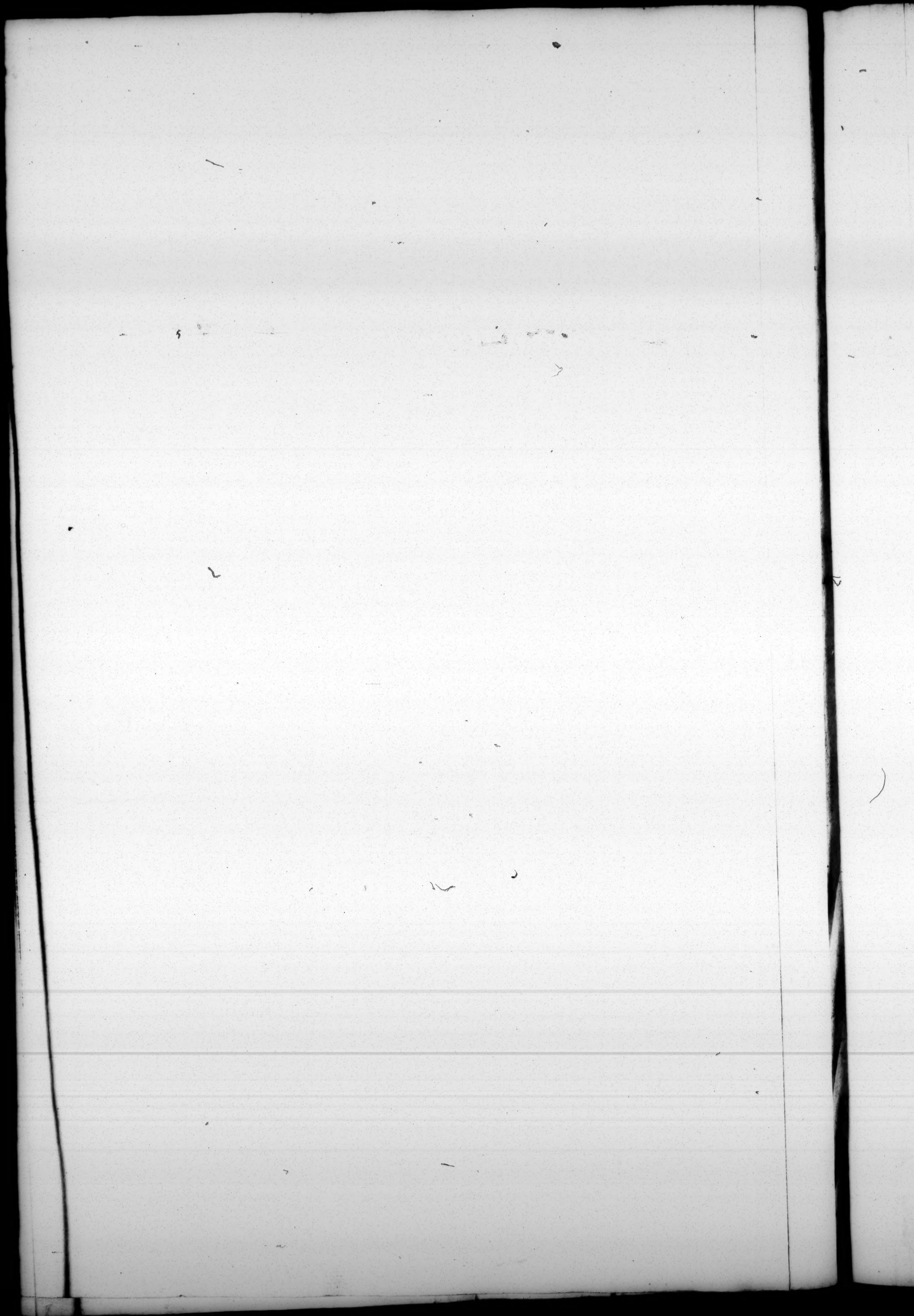
Tower of  
St. Peter's Church      Broadstays Windmill

# K E N T

*I S L E O F T H A N N E T*











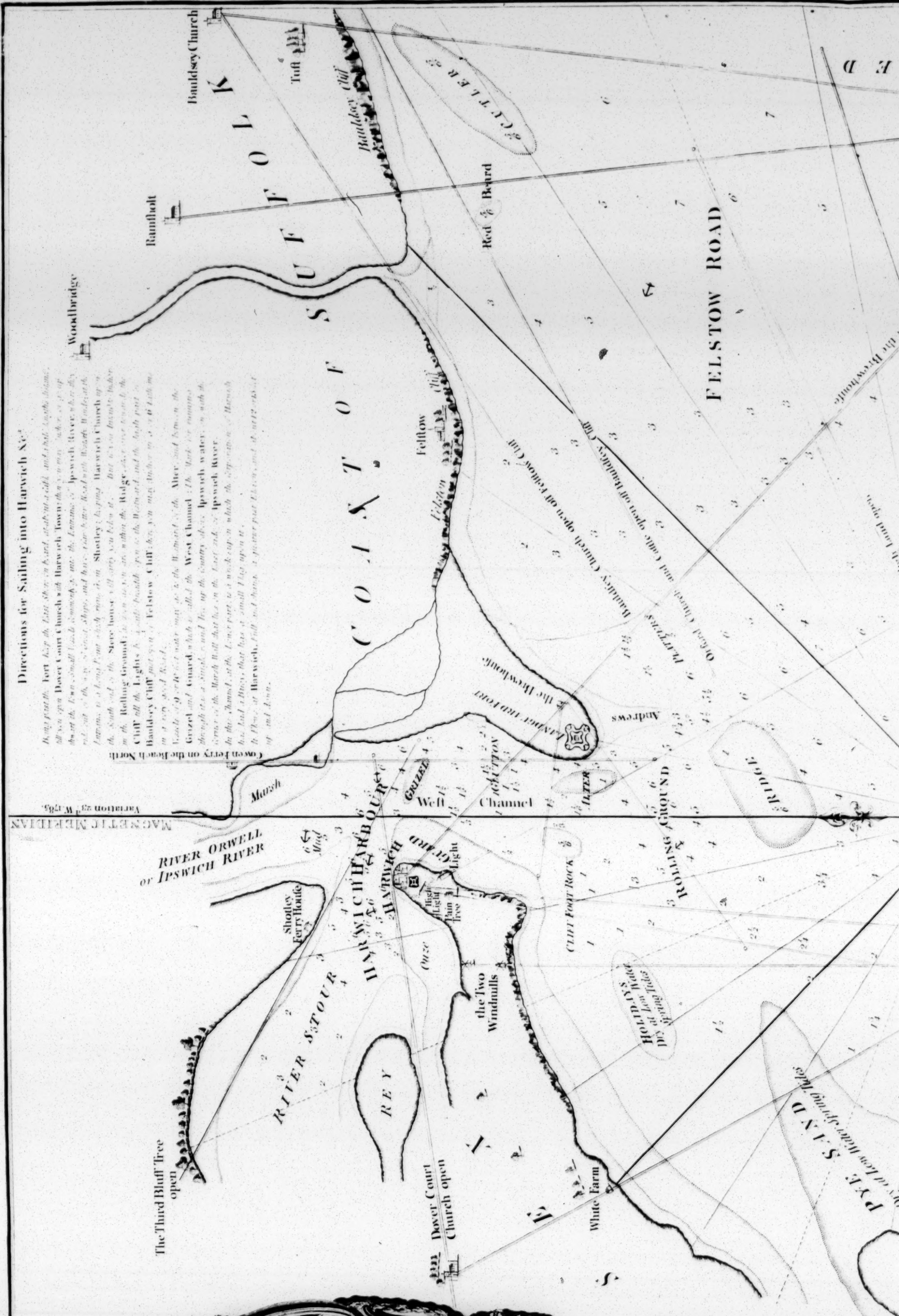


*most humbly Inveighed and Presented  
TO THE Hon<sup>ble</sup> CHIEF MAGISTRATE  
BY his most Obedient  
and most humble Servant  
Geo. Barn  
a Member in the Royal Navy.*

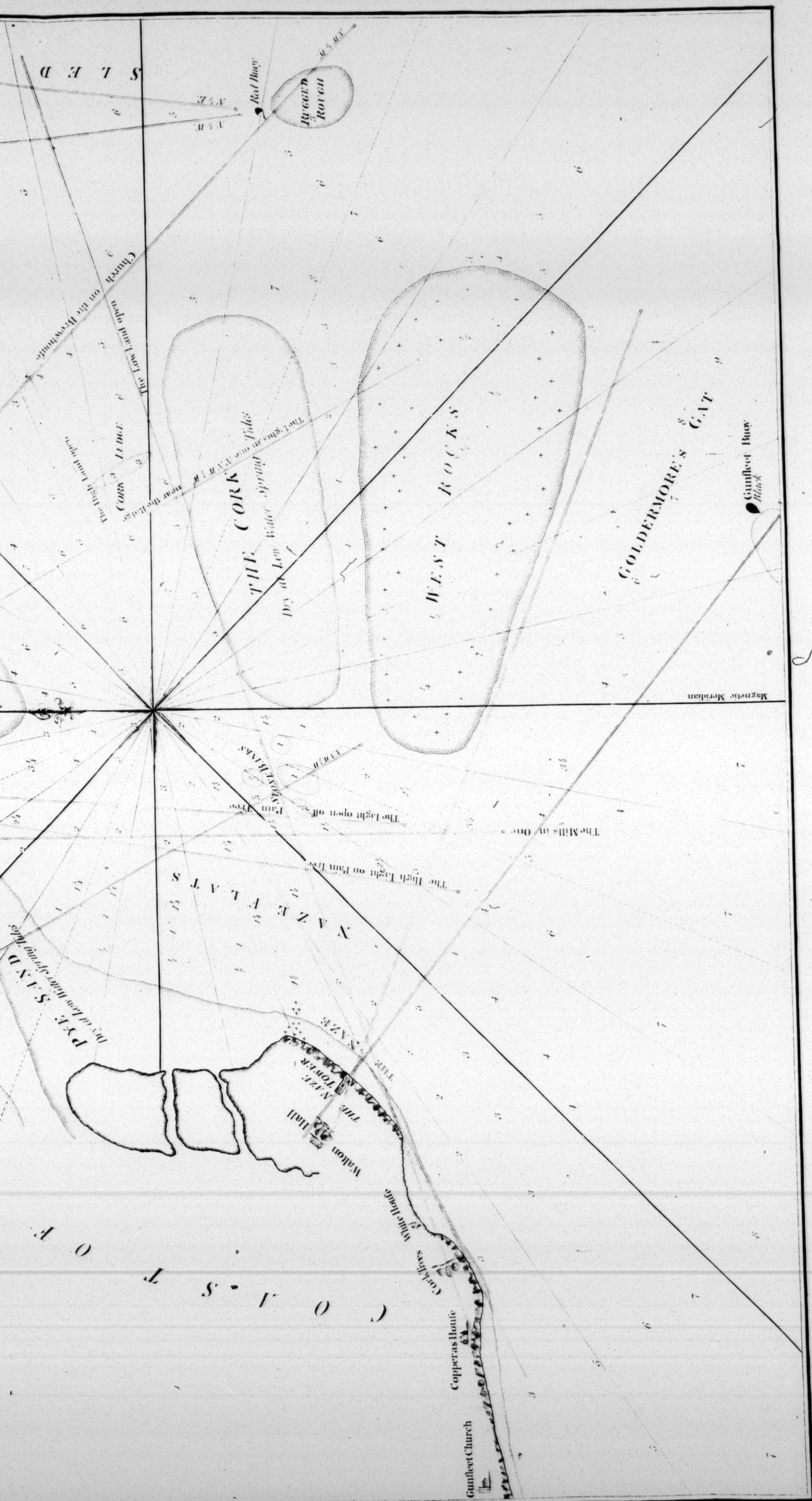
LONDON  
Published by Laurie & Whittle, 53 Fleet Street.  
24 May 1794.

One Nautic League. // Three Miles

*The Soundings are Fathoms at Low Water  
Spring Tides.*

















**Sailing Directions for the East Swale.**

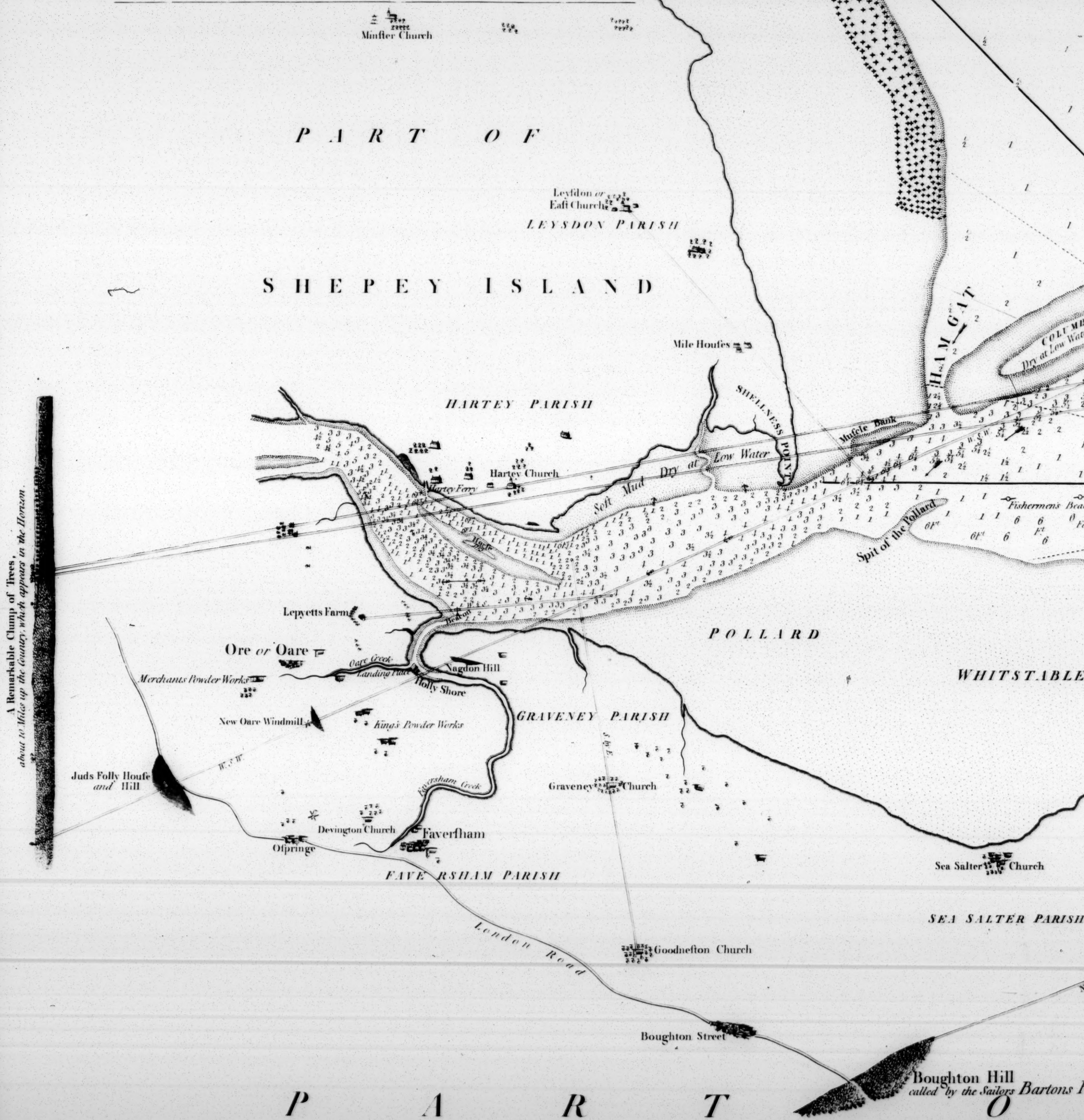
To Sail into the East Swale, if you are in Margate Road, or Wellgate Bay, with a Ship drawing between 14 & 18 feet water, & the Wind Easterly, wait until the Last Quarter Flood, then get under way: & when you have arrived at the Buoy of the Spell, steer W by N or W by NW until you bring a remarkable Clump of Trees which appears in the Horizon like a Saddle-hummock in one with Hartey Church, they will then bear W by S from you. Steer with these Marks in one, until you bring the New Windmill at Oare & Judds Folly House in one; they will then bear W by W from you. This Mark will carry you into the Swale. When you are within Shellness Point, you may Anchor in any part of the Swale secure from all Winds. — From the Queens Channel, steer W by S or W by S by S, & from the East Buoy of the Spaniard, W by S or W by S, until you get the Clump of Trees & Hartey Church in one, & proceed as before directed. — To Sail out of the Swale have a Landing Wind, & weigh

at Half Flood, when you will have plenty of Water over the East End, and get over the Flats by High Water, or soon after. The Tide rises in the Swale, at Spring-Tides 21 Feet, & at Neap-tides from 12 to 14 Feet. — It flows, at the Full & Change of the Moon, half past twelve o'Clock. — The Tide of Flood sets from the Buoy of the Spaniard through Ham-Gat, over on the Pollard; & the Ebb contrary; so that in sailing in or out of the Swale, be careful to keep your Marks in one. — In thick Weather, when you cannot see the Marks, if you can see Shellness Point, bring it to bear W by S, & steer in for it, which will carry you in safe. Or if you can see the Two Houses on Shellness (called Pauls Houses) bring them to bear W by N, & steer for them until you bring Shellness to bear W by S, & proceed as before.

13. The Bearings given here are by Compaſs, the Variation being 23° West, in 1780, as expressed in the Chart.

# A SURVEY OF THE EAST SWALE FROM THE BUOYS OF THE VAGRANT

BY JOHN STEPHENS, a Master in the Royal Navy.



A Remarkable Clump of Trees, about 10 Miles up the Country, which appears in the Horizon.

Shottenden Hill & Mill about 7 Miles up the Country

A Scale of One Nautic League  
LONDON  
Published 12 May 1794 by LAURIE & WHITTAKER



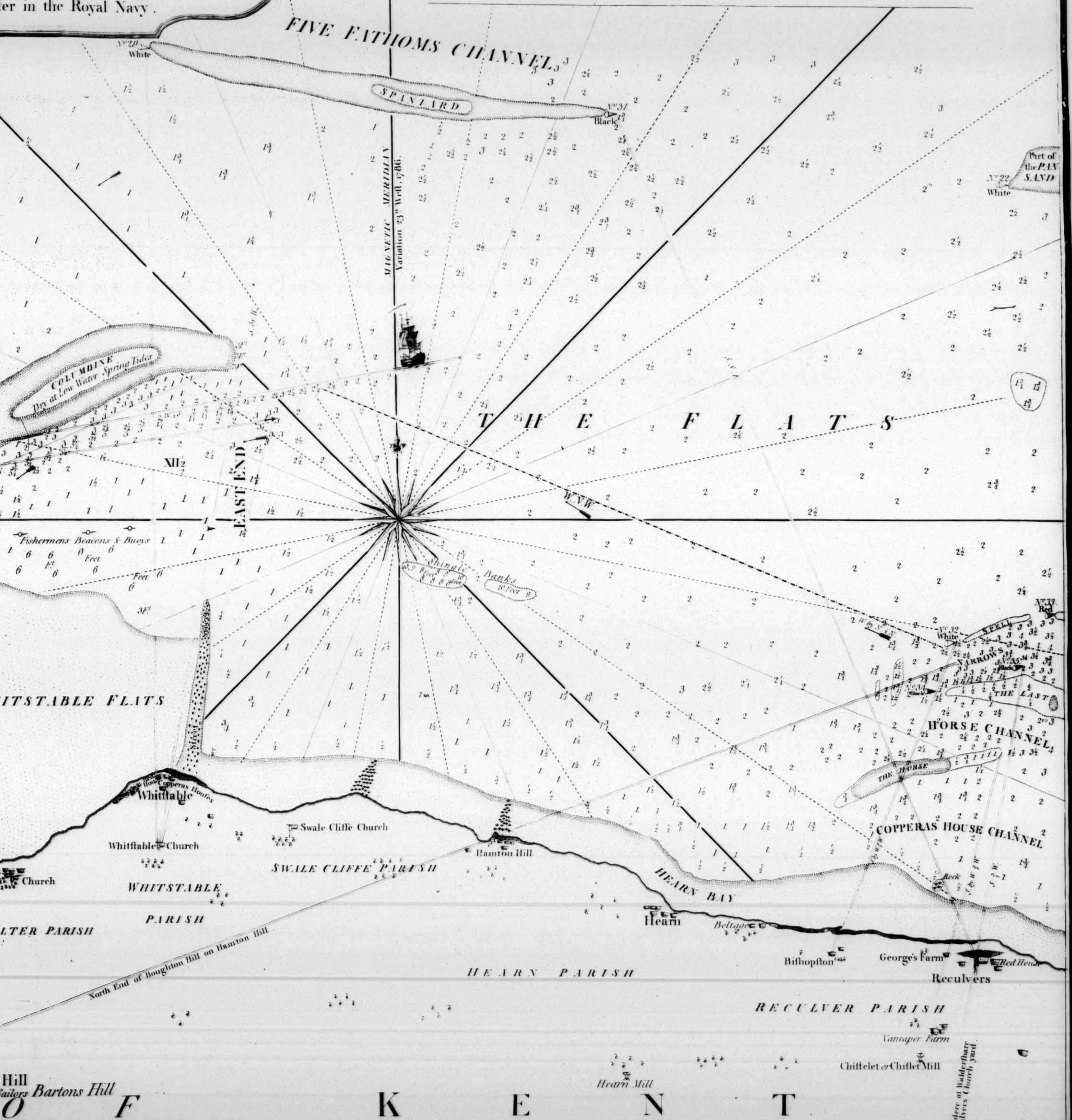
# SURVEY OF THE EAST SWALE

OF THE NARROWS AND SPANIARD

JOHN STEPHENSON,

Surveyor in the Royal Navy.

**Explanation.**  
*The Names of the Buoys in this Chart, & their Numbers as they are laid down by the Trinity House are as follow: viz.*  
*N<sup>o</sup> 29 West Buoy of the Spaniard. N<sup>o</sup> 31 East Buoy of the Spaniard. N<sup>o</sup> 32 Buoy of the Spell. N<sup>o</sup> 33 The Woolpack. N<sup>o</sup> 34*  
*West Buoy of the Laft. N<sup>o</sup> 35 Buoy of the Elbow. N<sup>o</sup> 22 Buoy of the Pan Sand.*  
*Low Sandy Shores & Mud. Clay Hills. Rocks.*  
*The Best Anchorage. The Two Anchors within Shellnefs point out where a Ship may be run a ground with safety.*  
*The Setting of the Tide. Leading Marks.*  
*The Roman Figures show the Time of High-Water at the Full & Change of the Moon, & the smaller Figures express the Depth*  
*of Water in Fathoms at Low-Water, except where the Letters F<sup>t</sup> Feet are inserted.*  
*The Double Soundings from the End of the Columbine to Shellnefs Point out the Depth of Water in Fathoms both at*  
*Low Water, & High Water, Spring Tides: Thus 3 1/2 High Water*



One Nautic League or Three Miles.  
 LONDON:  
 1794, by LAURIE & WHITTLE, 53 Fleet Street

End of Guildford's Helvetic at Walderburgh on the line corner of Reculver's Church yard.

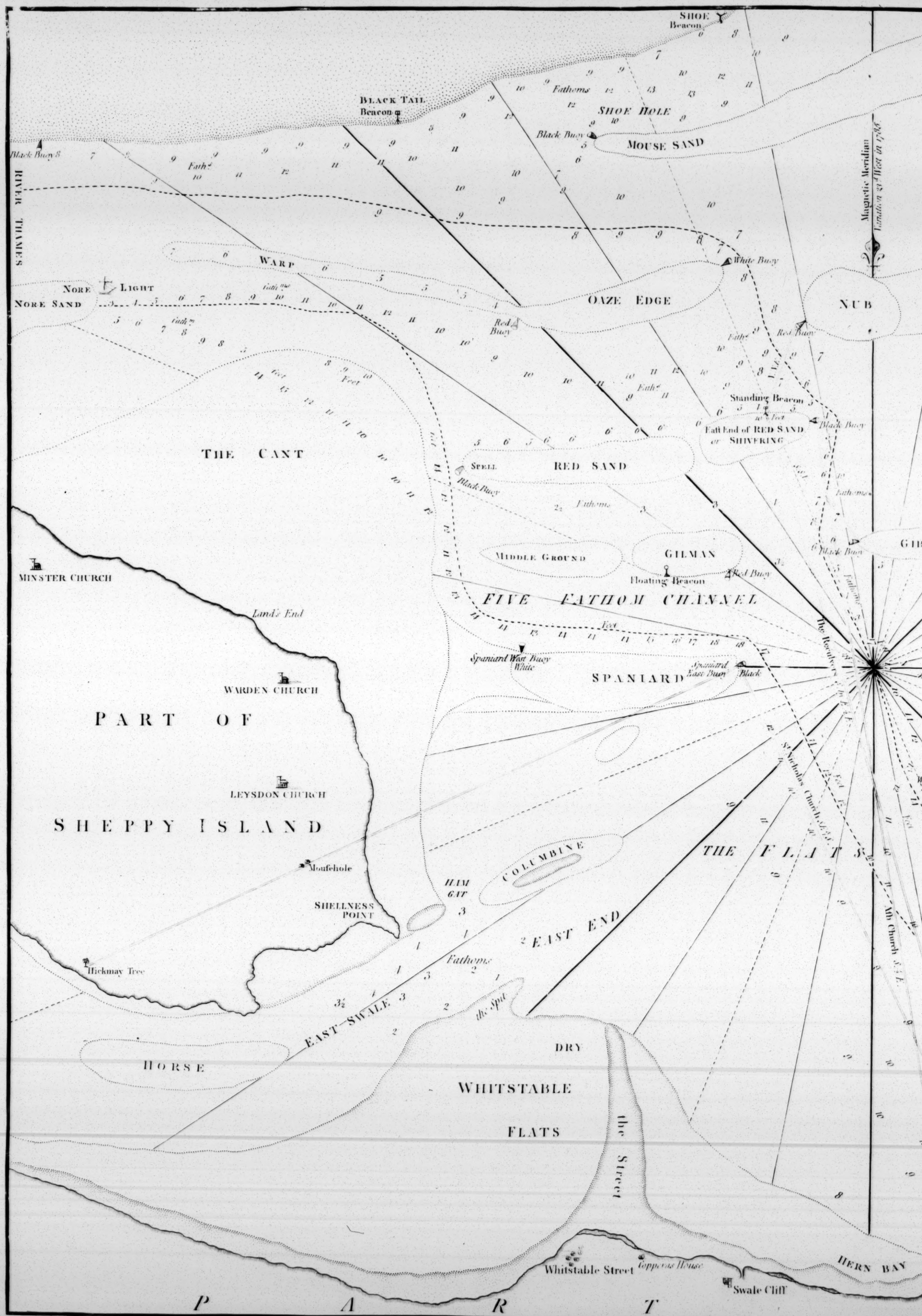














# A CHART OF THE SANDS AND CHANNELS, from THE NORE to MARGATE ROAD.

In the Narrows as far as the edge of GORE, and on the FLATTS, in the five fathm Channel, on both sides the MIDDLE GROUND and to the Northward of it, down as far as the Gildman beacon, & on S. CANT, the depth of water is set down in feet, at low water Spring Tides.

ASH CHURCH, open to the W.ward of the REEGLERS, bearing S. 2 E. is the mark for the East end of the RED SAND. The standing beacon on the PAN SAND, a Ships length on upon the NORTH FORELAND is the mark for the West end of the GIRDLER. Corrected and Improved

By JAMES GROSVENOR Pilot.

LONDON

Published by LAURIE & WHITTLE, No. 53 Fleet Street, as the Act directs, 12<sup>th</sup> May, 1794.

Scale of Four Miles

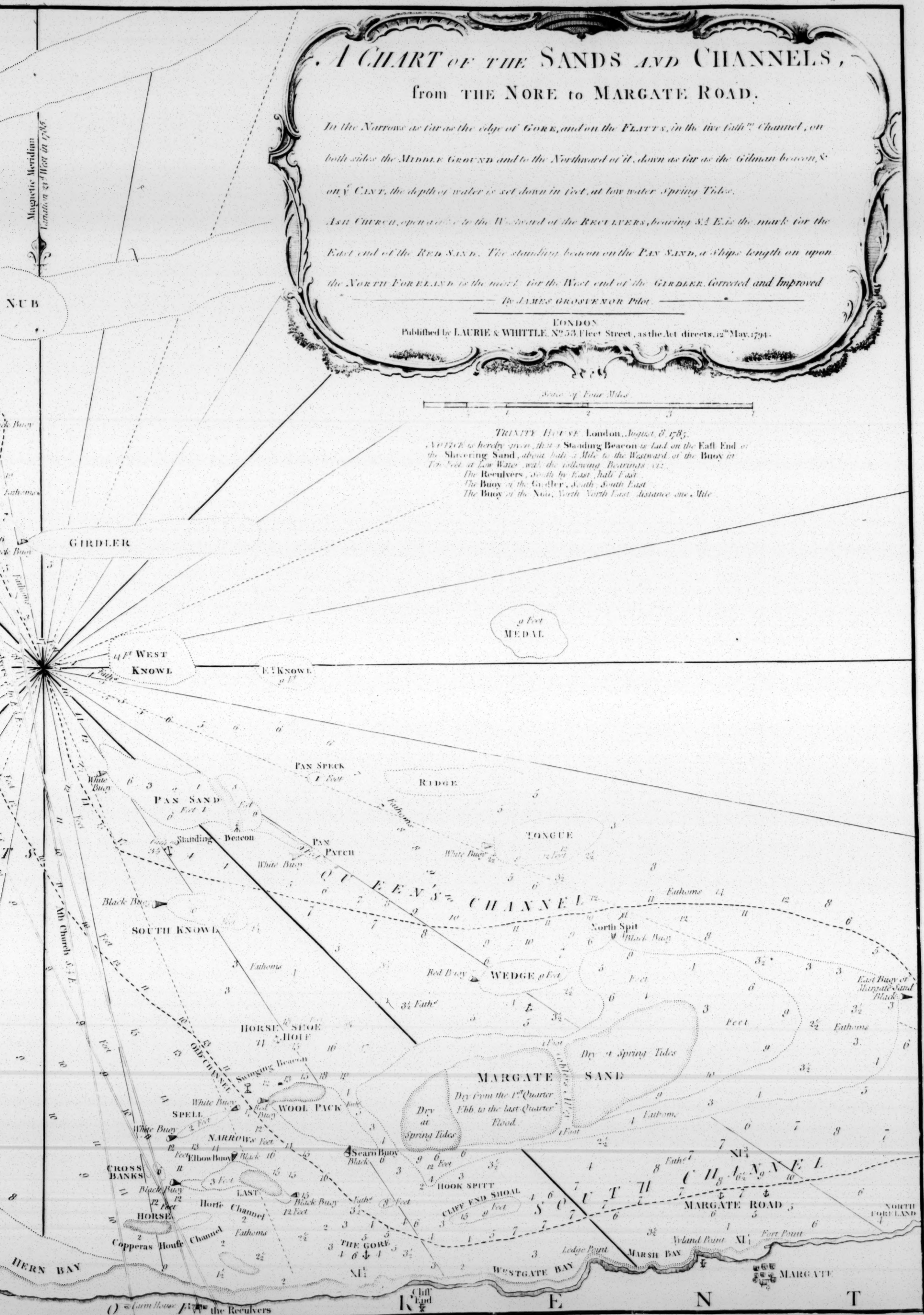
TRINITY HOUSE London, August 8, 1785.

NOTICE is hereby given, that a Standing Beacon is laid on the East End of the Shivering Sand, about half a Mile to the Westward of the Buoy at Ten feet at Low Water, with the following Bearings, viz.

The Reeglers, South by East, half East.

The Buoy of the Girdler, South, South East.

The Buoy of the Nub, North North East, distance one Mile.





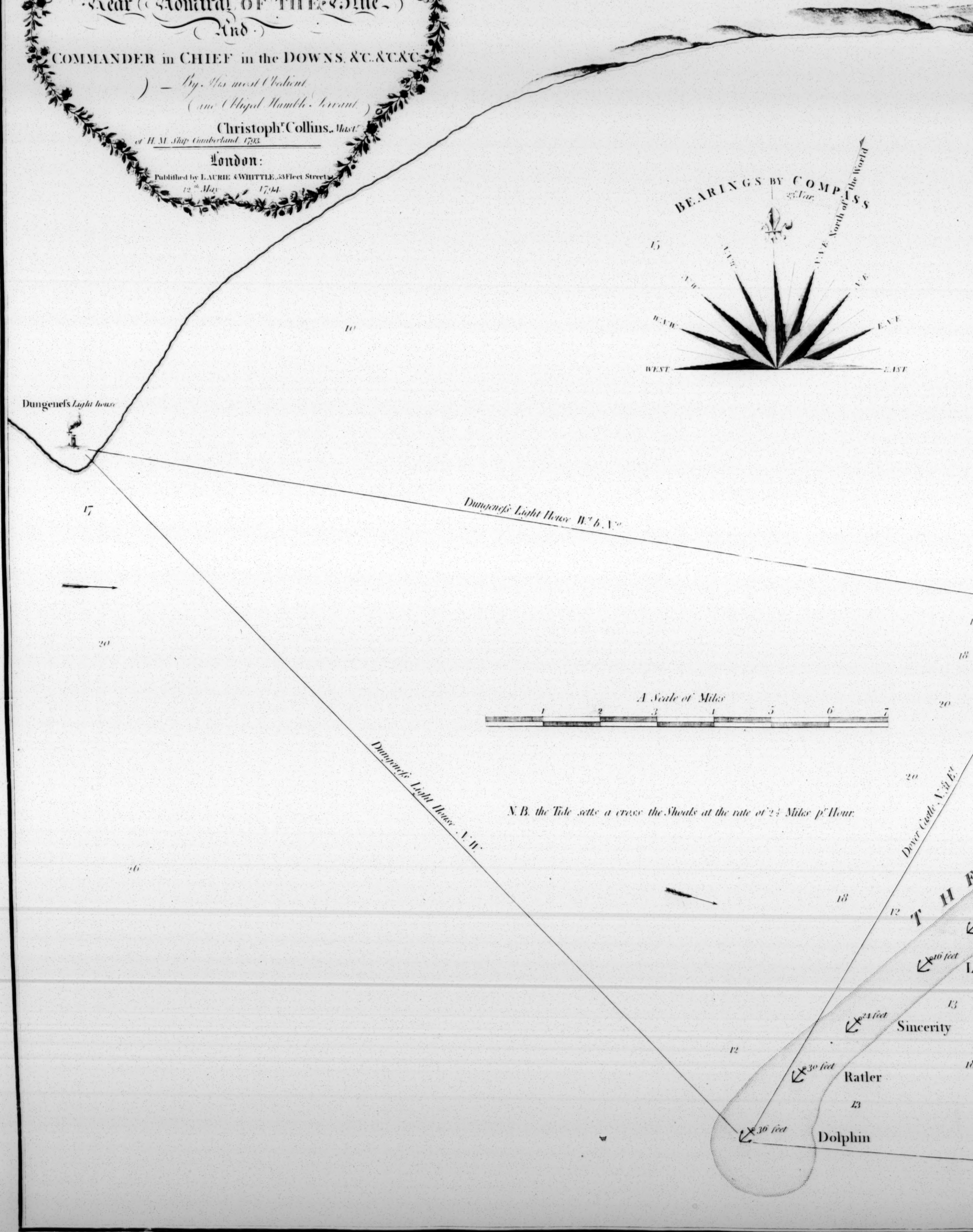




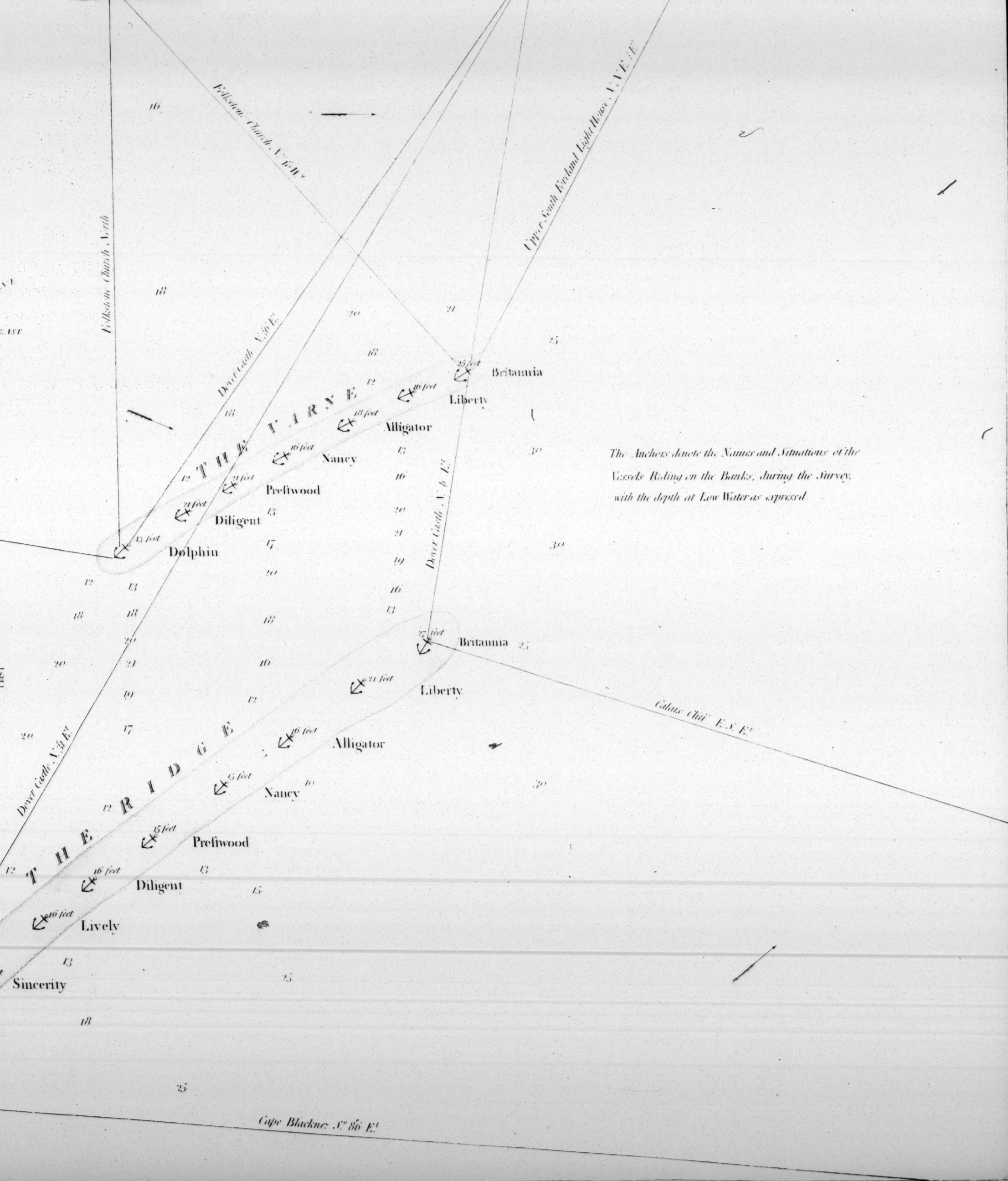
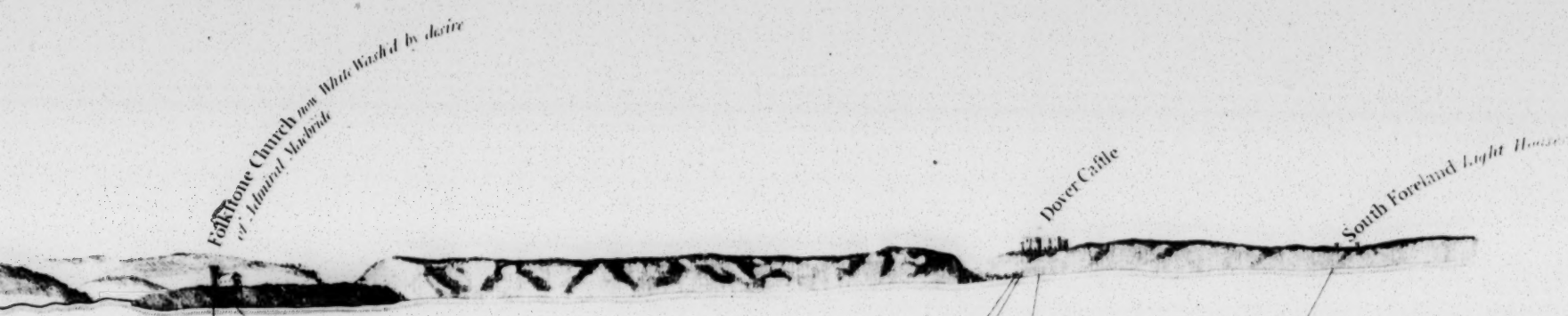




An Actual Survey  
of the  
**VARNER & RIDGE;**  
Taken by Order of  
**JOHN MACBRIDE, ESQ<sup>r</sup>**  
*Rear Admiral of the Blue,*  
*(And)*  
**COMMANDER in CHIEF in the DOWNS, &c. &c. &c.**  
*By, His most Obedient*  
*(and Obedient Humble Servant)*  
**Christoph Collins, Master**  
*of H. M. Ship Cumberland 1793*  
**London:**  
Published by LAURIE & WHITTLE, 53 Fleet Street  
*12<sup>th</sup> May 1794*







The Anchors denote the Names and Situations of the Vessels Riding on the Banks, during the Survey, with the depth at Low Water as ascertained.

Cape Blacknes S. 86° E.











# AN ACTUAL THE COAST

FROM DIM CHURCH TO  
with

THE NEW  
TO THE WESTWARD

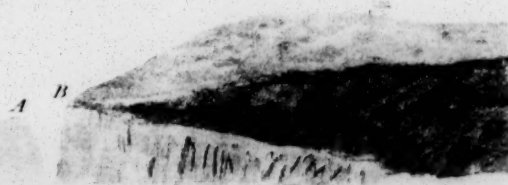
BY  
JOHN STEPHENSON a Malt

LONDON

Published 12 May 1794 by LAURIE & WH

One Nautic League or T

Appearance of the Land of Beachy Head and Fairleigh  
when on Dunge nefs Shoal.



## DIRECTIONS FOR SAILING

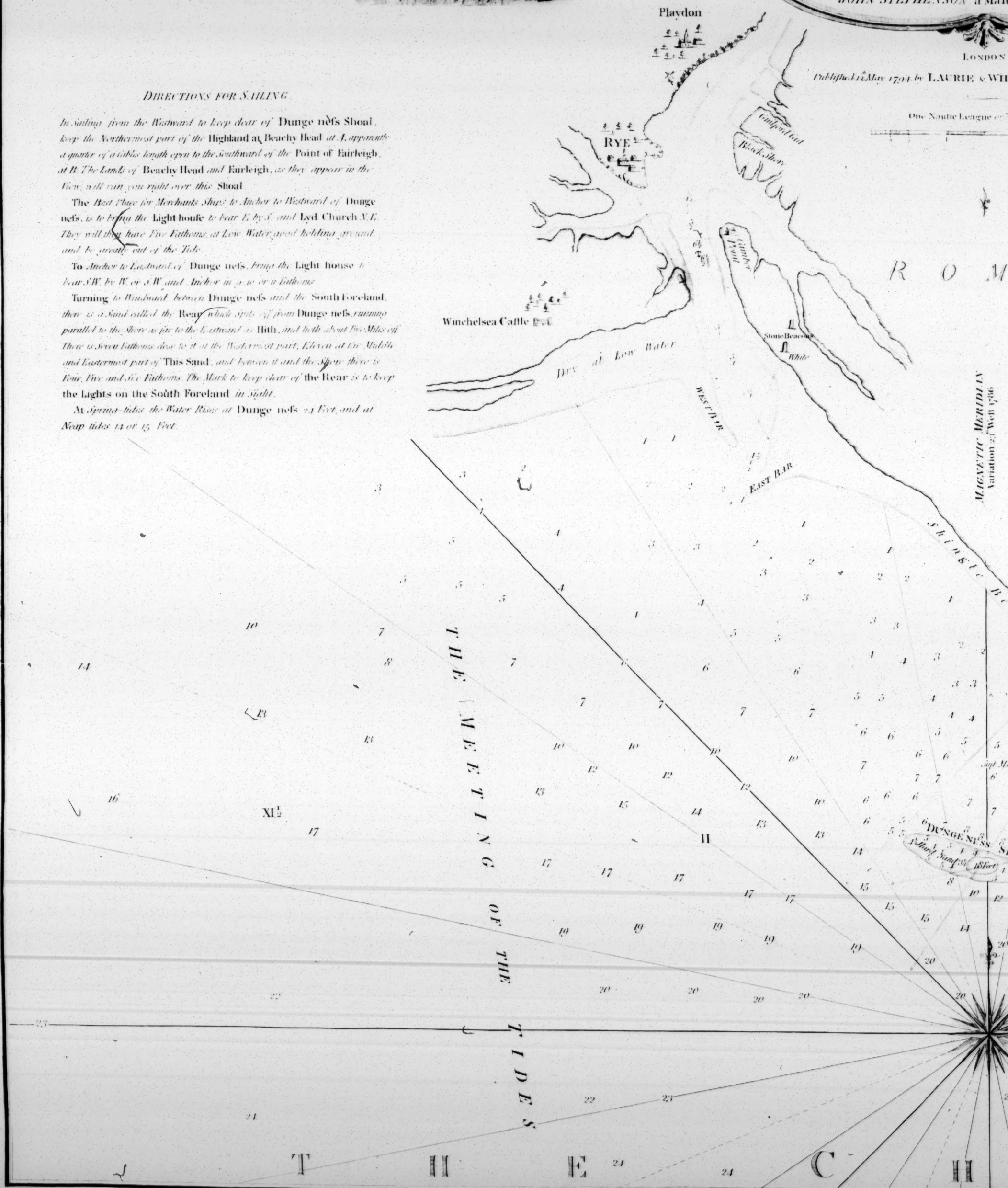
In sailing from the Westward to keep clear of Dunge nefs Shoal, keep the Northernmost part of the Highland at Beachy Head at A, apparently a quarter of a cables length open to the southward of the Point of Fairleigh, at B. The Lands of Beachy Head and Fairleigh, as they appear in the View, will run you right over this Shoal.

The Best Place for Merchants Ships to Anchor to Westward of Dunge nefs, is to bring the Light house to bear E. by S. and Lyd Church N.E. They will then have Five Fathoms, at Low Water, good holding ground, and be greatly out of the Tide.

To Anchor to Eastward of Dunge nefs, bring the Light house to bear S.W. by W. or S.W. and Anchor in 5 to 6 Fathoms.

Turning to Windward, between Dunge nefs and the South Foreland, there is a Sand called the Rear, which splits off from Dunge nefs, running parallel to the Shore as far to the Eastward as Hith, and both about five Miles off. There is seven Fathoms close to it in the Westward part, Eleven at the Middle and Easternmost part of this Sand, and between it and the Shore there is four, five and six Fathoms. The Mark to keep clear of the Rear is to keep the Lights on the South Foreland in Sight.

At Spring tides the Water Rises at Dunge nefs 24 Feet, and at Neap tides 14 or 15 Feet.





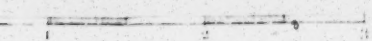
ACTUAL SURVEY OF  
EAST OF KENT  
FROM RYE HARBOUR,  
with  
NEW SHOAL  
STWARD OF DUNGENESS.

BY  
J. EVSON a Master in the Royal Navy.

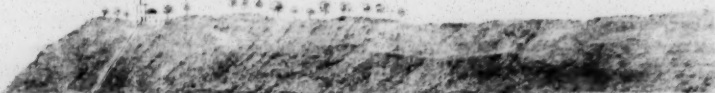
LONDON

LAURIE & WHITTIE, 53 Fleet Street.

Nautic League or Three Miles.



Ruins of Chapel at Street about a Mile up the Gentry



High Land to Northward of Romney Marsh

ROMNEY MARSH



NEW ROMNEY

Dim Church



LYD CHURCH



DUNGENESS

Light House

Latitude 50 36 48 N

Eschermans Butte

MAGNETIC MERIDIAN  
Variation 22° West 1736

SHOAL BEACH

and Windmill in one

LYD CHURCH

Light House

Latitude 50 36 48 N

Eschermans Butte

Light House

Latitude 50 36 48 N

Eschermans Butte

Light House

Latitude 50 36 48 N

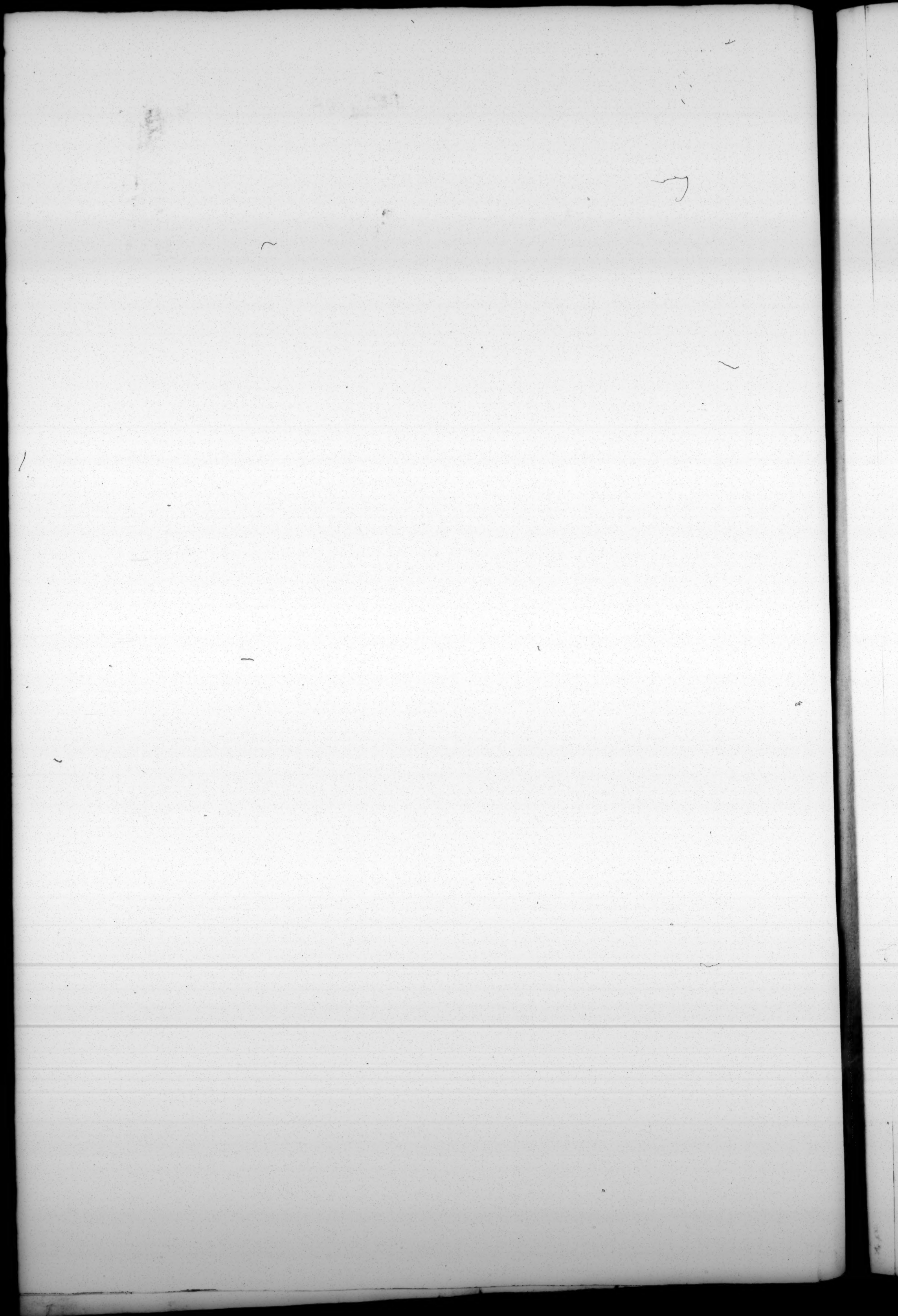
Eschermans Butte

Light House

Latitude 50 36 48 N

H A N N E L











Binj



Bring St. Lawrence inside



DIRECTIONS for Sailing.

To Sail to the Eastward of the Eastburrow-head into the Park, or to pass through the Loose Stream. Chichester Church must be brought to the Eastward of Pagham Church, after you have 10 fathoms to appearance about a furlong, the White way on the Hill will be 1/2 mile of Trees at Pagham, & in the Middle between the two Churches, & you'll have gradual soundings into the Park from 18 to 15, 12, 9, 6, Fathom, & so decreasing to the Shore. You may Anchor in 4, 5, 6 Fathom Water in the Park, Good Ground, distance from Selby Hill about 2 Miles bearing N. W. by W. or N. W. by N.

To Sail out of the Park through the Loose Stream. Keep the Westernmost Beachy Point of Selby Harbour on Pagham Church, until you open Wind & Sunnet on the Isle of Wight, with Culver Cliff, which must be kept a little open to Run through the Loose Stream when you'll have at least 5, 6, 7 Fathom Water, but when you have 10 Fathom, you are Westward of the River, Chichester Church being on a Head called Medbury, which is to the Westward of the Mill.

To Sail over the Bar into Chichester Harbour. Bring Bosham Church having above a League off, a little to the Eastward of the Middle between the two points of the Harbour, this Mark will carry you into the West Deep, in which you may Anchor in 5, 6, 7 Fathom Water. But to Sail up to Chichester, the Gardiners being in the way, which dry at low Water, in Spring Tides, to go round them Head, sail directly to the middle of Thorney Isle, until the Chimney of a House, at Snow Hill, be brought on Westbury Church. Or to go through the Slueway at Tide time, bring Bosham Church on the Mill at Bosham Hill, & you'll have 2 Fathoms at Flood.

That the Bar of Chichester Harbour is Shifting.

To Sail into Spithead.

Sailing into Spithead from the Eastward, in order to avoid the East Burrow, and the Overs, take care to keep Dunnet's E. W. until Chichester Spire comes on with Medbury House, or until Culver Cliff bears N. W. Then Steer N. W. by N. or N. W. by W. according as you have the Wind & Tide, until you fall on the S. Eastmost Buoy on the Horse Sand, or the Buoy of the Dene; You must leave them on the Starboard side, and Steer N. W. by N. between the Buoys for Spithead. The best Place for Merchant-ships to Anchor at Spithead, is to bring Kickerhill Tower N. W. by N. and South Sea Castle East, or E. S. E. in 7 Fathoms water. Men of War choose to Anchor farther out in deeper Water.

The leading Mark into Spithead is Mithdown Tower in the Isle of Wight, just in Sight above the Trees on the Island, the other Mark is Kickerhill Tower on the S. E. Point of Monckton Fort, but as these Marks are often obscured by the Shipping at Spithead, I will recommend the other Mark, which is always to be seen in clear Weather.

To Sail from Spithead out at the Needles, being between the Middle & Broadle Shoals, you may steer out Stokes Bay until you bring South Sea Castle under the breadth of the Northward of Monckton Fort, then all carry you between the Buoys. Observe that Spire, den and to Southward of the Middle, and this Channel, I judge, is equally good. When you are arrived at Well Cow's Point, Steer W. or W. S. W. keeping nearest the Island Side, all you get as far as Yarmouth, then steer over for Hurst Castle to avoid the Warden Ledge. From Hurst Castle to the Needles Point, the Course is E. S. E. but you must be careful of the Tide, as the Flood sets strong on the Island & the Ebb on the Shingles. The Tide runs between Hurst Castle & Seance Point, at the rate of 6 miles in four hours. Ships must not attempt to sail against the Tide, except they have a fresh Breeze or Wind. Sailing over the Bridge, that is the Flat between the East end of the Shingles, and the Needles Point, the deepest Water is 5 1/2 Fathoms, and a good way from the Needles Point you have only 3 Fathoms. The best mark to sail over the Bridge, in the deepest of Water, is a remarkable clump of Trees that stand to the Westward of Seance Point on with Seance Point.

There are now Two Light-houses to direct the sailing in & out of the Needles; the one is on the Beach a little to the Northward of Hurst Castle; & the other is on the Top of the high Chalky Cliff within the Needles on the Island.

To Sail over the Bar into Poole Harbour, keep Bramblea Castle touching with North Haven Point, the Bombs on the West of you.

The Bar of the Harbour of Poole is shifting, & therefore it is advisable to those who sail therein to inform themselves about it.

COAST from ARUNDEL HAVEN

Including chiefly THE ISLE OF WIGHT

showing all the Shoals, Sands, Light-Houses

with the Time of High water, Setting

at each End of the ISLE of WIGHT

SURVEYED BY

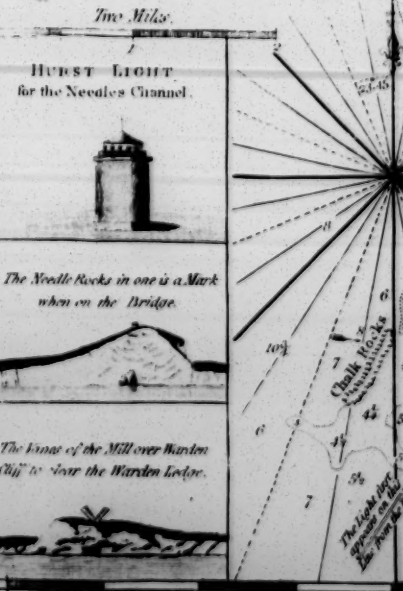
and Dedicated to the Right

Revised in 1794.

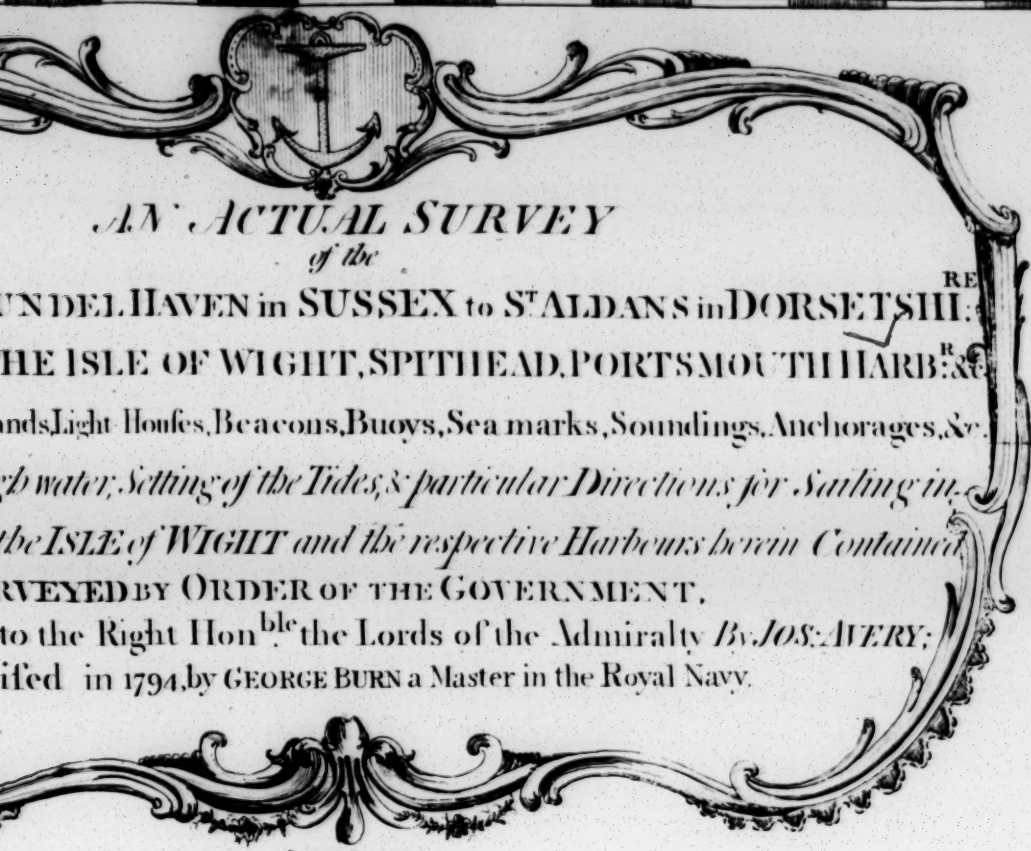
Published 12 May 1794



THE PASSAGE BY THE WEST END OF THE ISLE OF WIGHT, with the LIGHT-HOUSES OF THE NEEDLES POINT and HURST BEACH, from the Plan Published by Order of THE CORPORATION OF TRINITY HOUSE.







*AN ACTUAL SURVEY*

*of the*

UNDEL.HAVEN in SUSSEX to ST ALDANS in DORSETSHIRE.

THE ISLE OF WIGHT, SPITHEAD, PORTSMOUTH HARBOUR.

ands, Light Houses, Beacons, Buoys, Sea marks, Soundings, Anchorages, &c.

Water, Setting of the Tides, & particular Directions for Sailing in.

the ISLE of WIGHT and the respective Harbours herein Contained.

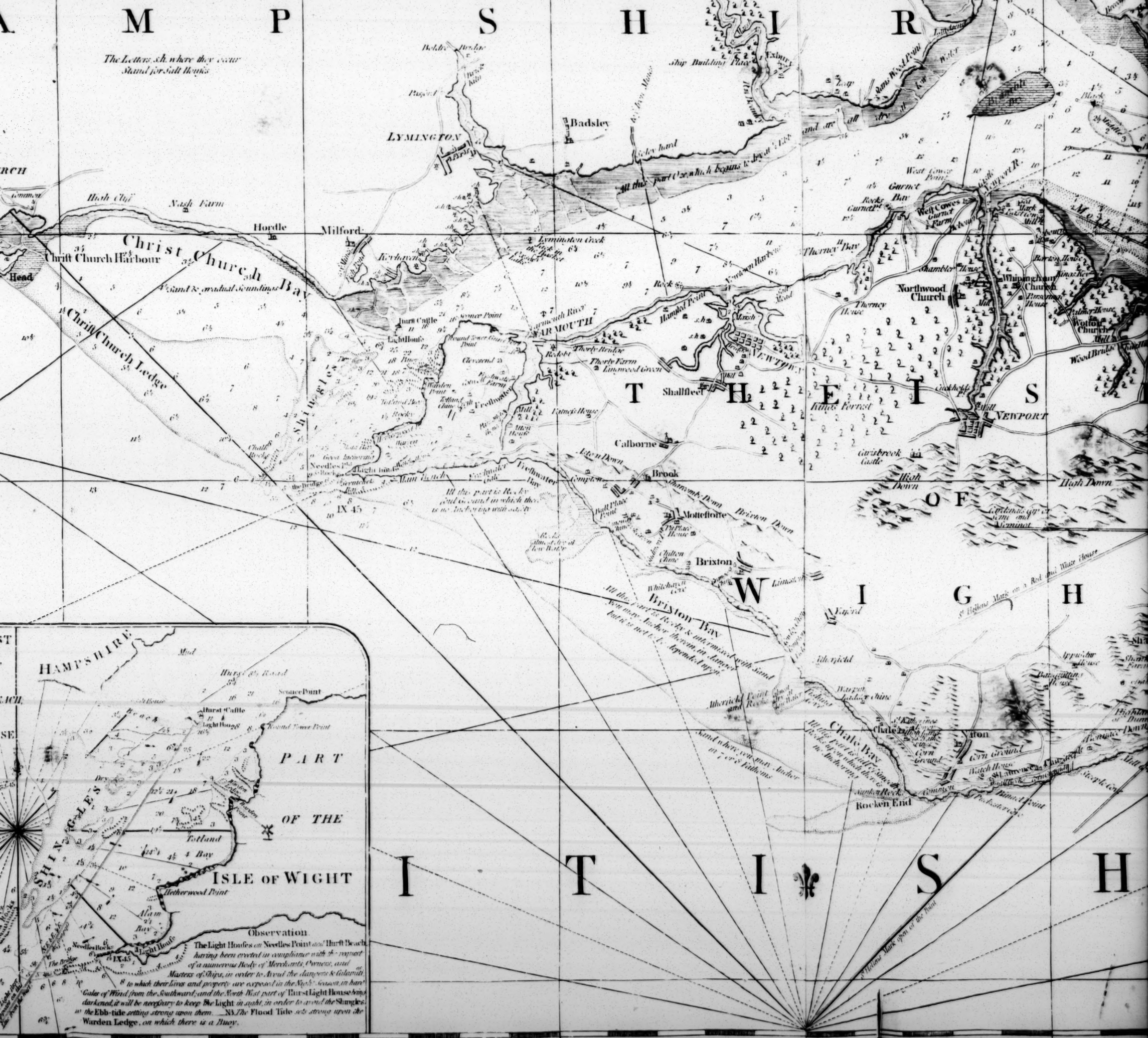
VEYED BY ORDER OF THE GOVERNMENT.

to the Right Hon<sup>ble</sup> the Lords of the Admiralty By *JOS. AVERY;*

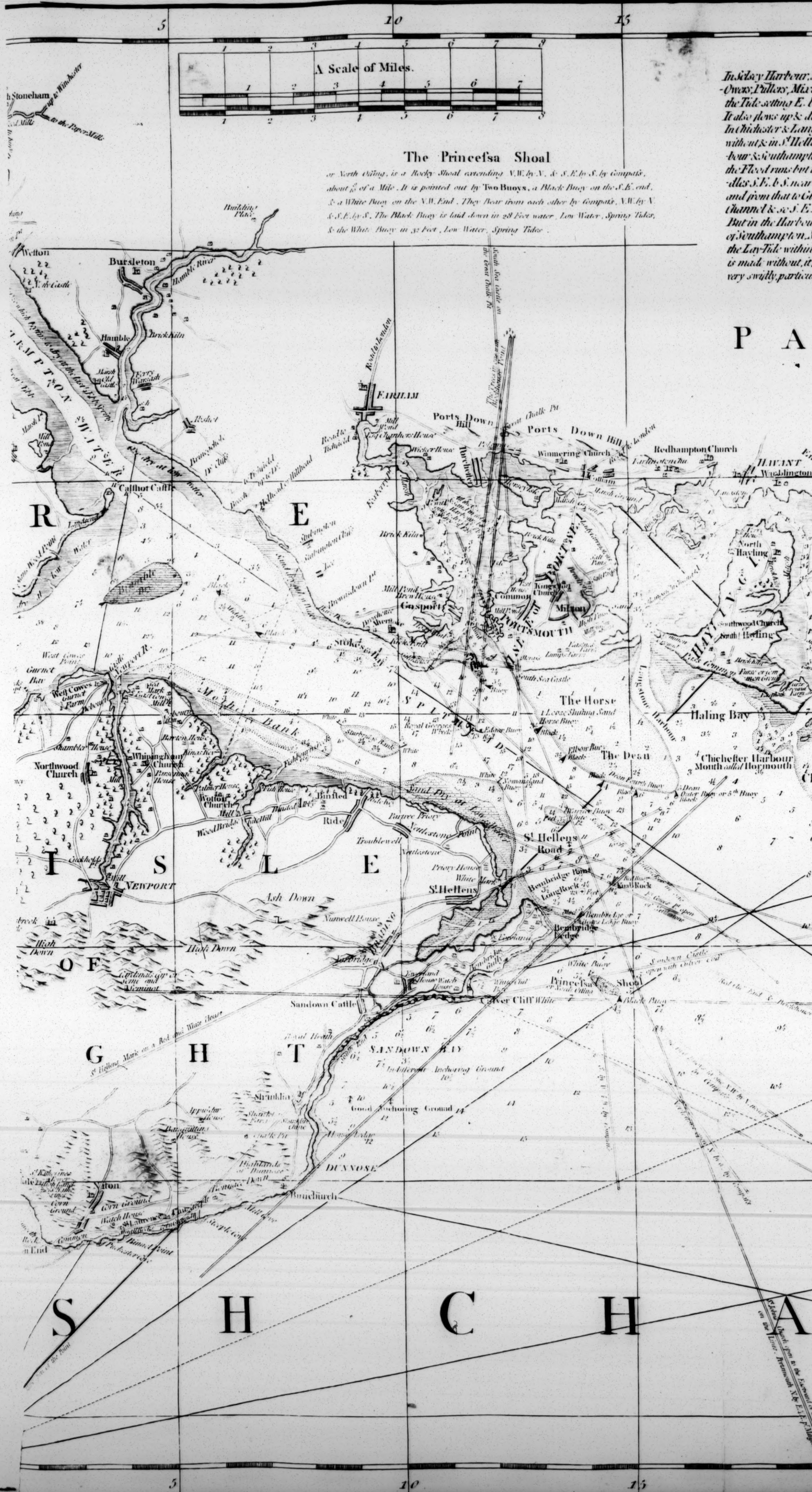
ified in 1794, by *GEORGE BURN* a Master in the Royal Navy.

LONDON:

ublished 12 May 1794, by *LAURIE & WHITTLE, N<sup>o</sup> 53, Fleet Street.*















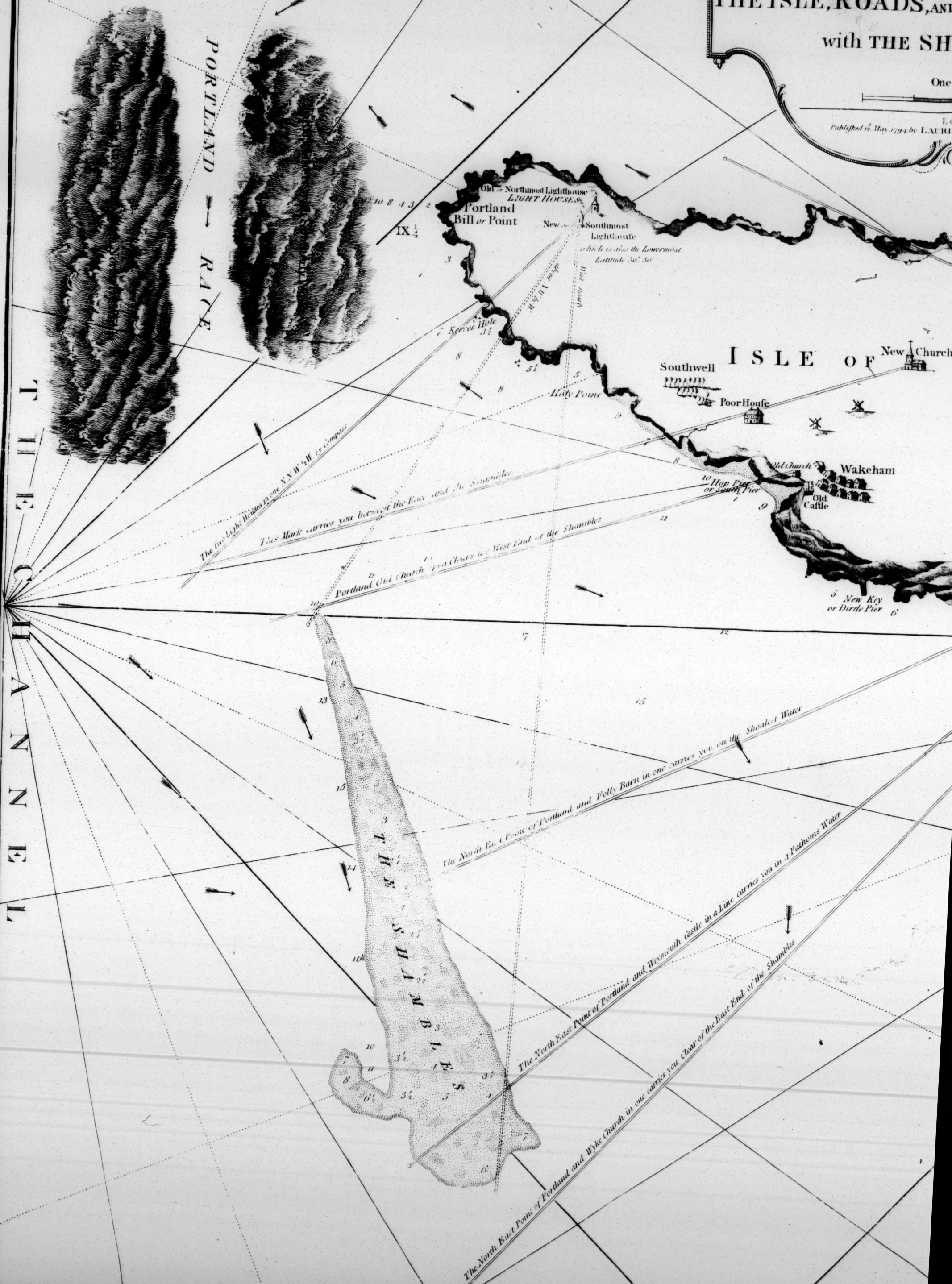






# A CHART OF THE ISLE, ROADS, AND with THE SHAMBLE

Published 17 May 1794 by LAURIE

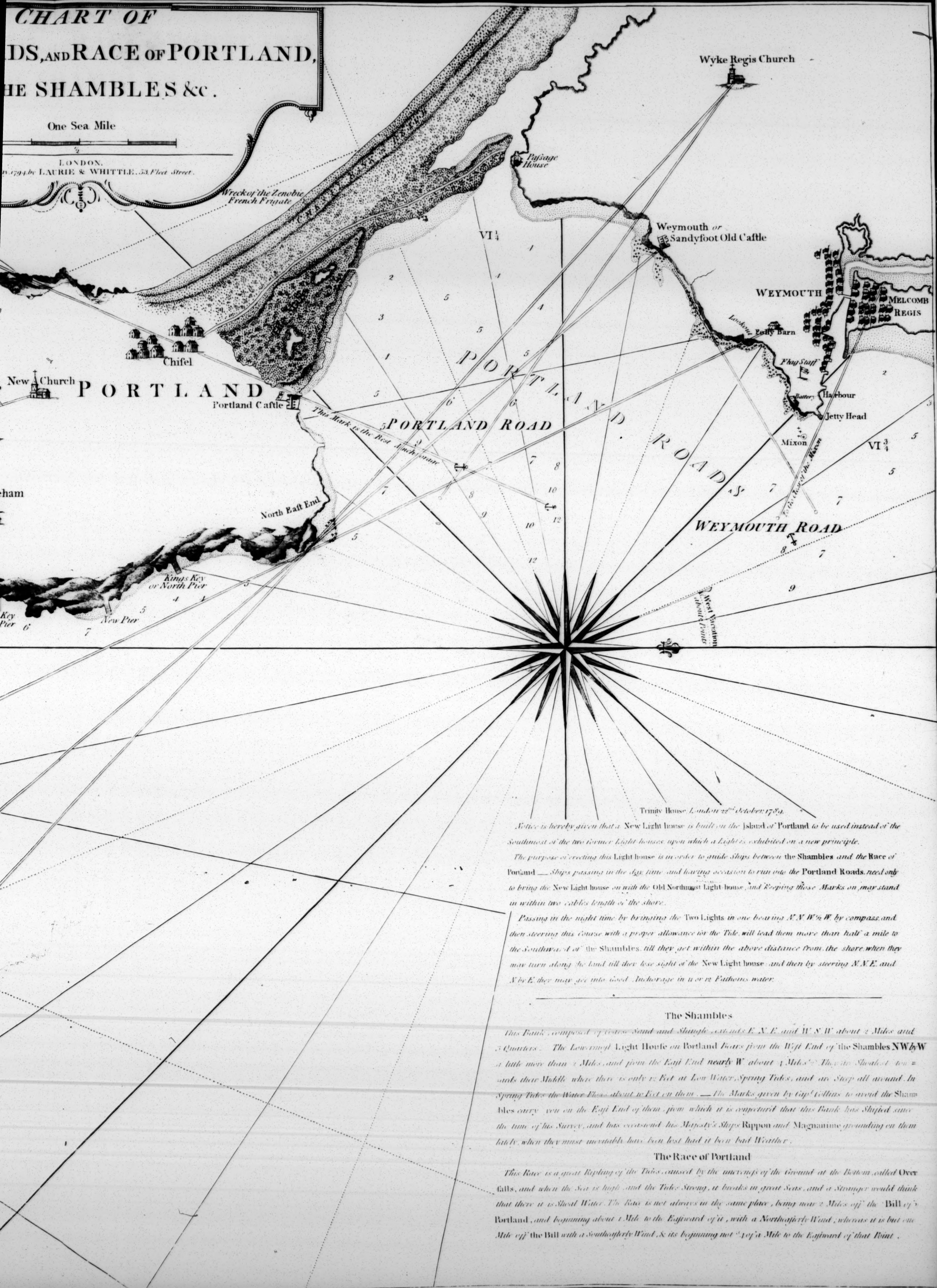




# CHART OF ISLANDS, AND RACE OF PORTLAND, THE SHAMBLE &c.

One Sea Mile

LONDON,  
Printed by LAURIE & WHITTLE, 53, Fleet Street.



Notice is hereby given that a New Light house is built on the Island of Portland to be used instead of the Southmost of the two former Light houses, upon which a Light is exhibited on a new principle.

The purpose of erecting this Light house is in order to guide Ships between the Shambles and the Race of Portland — Ships passing in the day time and having occasion to run into the Portland Roads, need only to bring the New Light house on with the Old Northmost Light house, and keeping those Marks on, may stand in within two cables length of the shore.

Passing in the night time by bringing the Two Lights in one bearing N. N. W. by compass, and then steering this Course with a proper allowance for the Tide, will lead them more than half a mile to the Southward of the Shambles, till they get within the above distance from the shore, when they may turn along the land till they lose sight of the New Light house, and then by steering N. N. E. and N. by E. they may get into good Anchorage in 12 or 14 Fathoms water.

## The Shambles

This Bank, composed of coarse Sand and Shingle, extends E. N. E. and W. S. W. about 2 Miles and 3 Quarters. The Lowmoy Light House on Portland Bore from the West End of the Shambles N. W. by W. a little more than 1 Mile, and from the East End nearly W. about 1 Mile. They are Shoalest two = mals their Middle where there is only 12 Feet at Low Water, Spring Tides, and are steep all around. In Spring Tides the Water flows about 10 Feet on them. — The Marks given by Capt Collins to avoid the Shambles carry you on the East End of them, from which it is conjectured that this Bank has shifted since the time of his Survey, and has occasioned his Majesty's Ships Rippon and Magnanime grounding on them lately when they must inevitably have been lost had it been bad Weather.

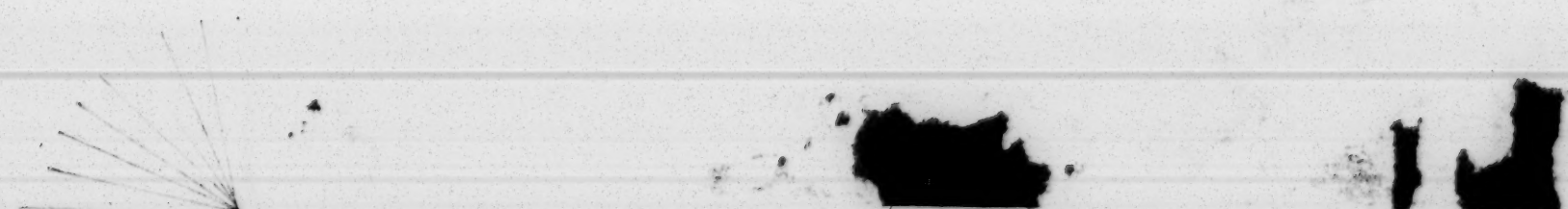
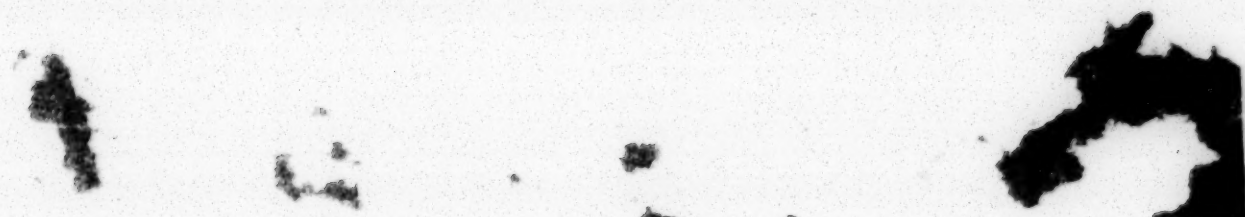
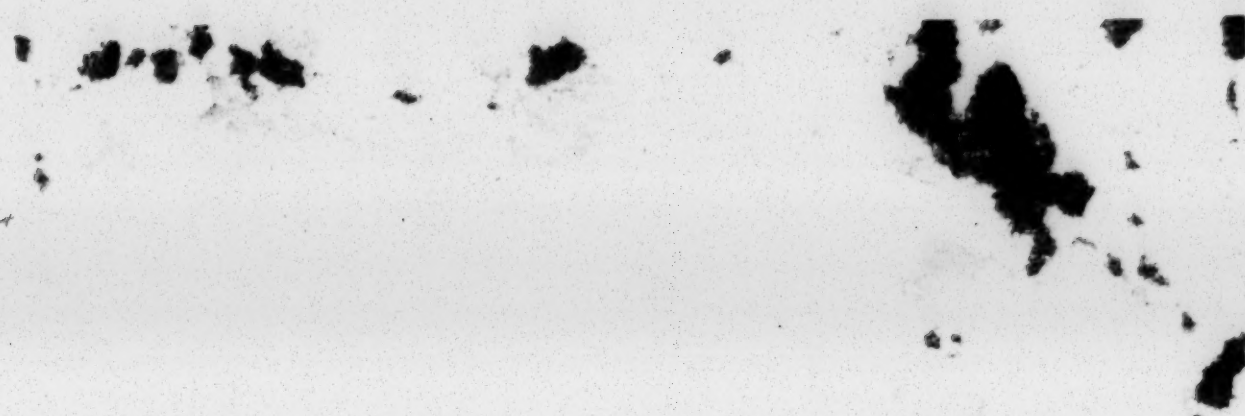
## The Race of Portland

This Race is a great Repling of the Tides, caused by the unevenness of the Ground at the Bottom, called Over Falls, and when the Sea is high, and the Tides Strong, it breaks in great Seas, and a Stranger would think that there it is Shal Water. The Race is not always in the same place, being near 2 Miles off the Bill of Portland, and beginning about 1 Mile to the Eastward of it, with a Northwesterly Wind, whereas it is but one Mile off the Bill with a Southerly Wind, & its beginning not 1/2 of a Mile to the Eastward of that Point.





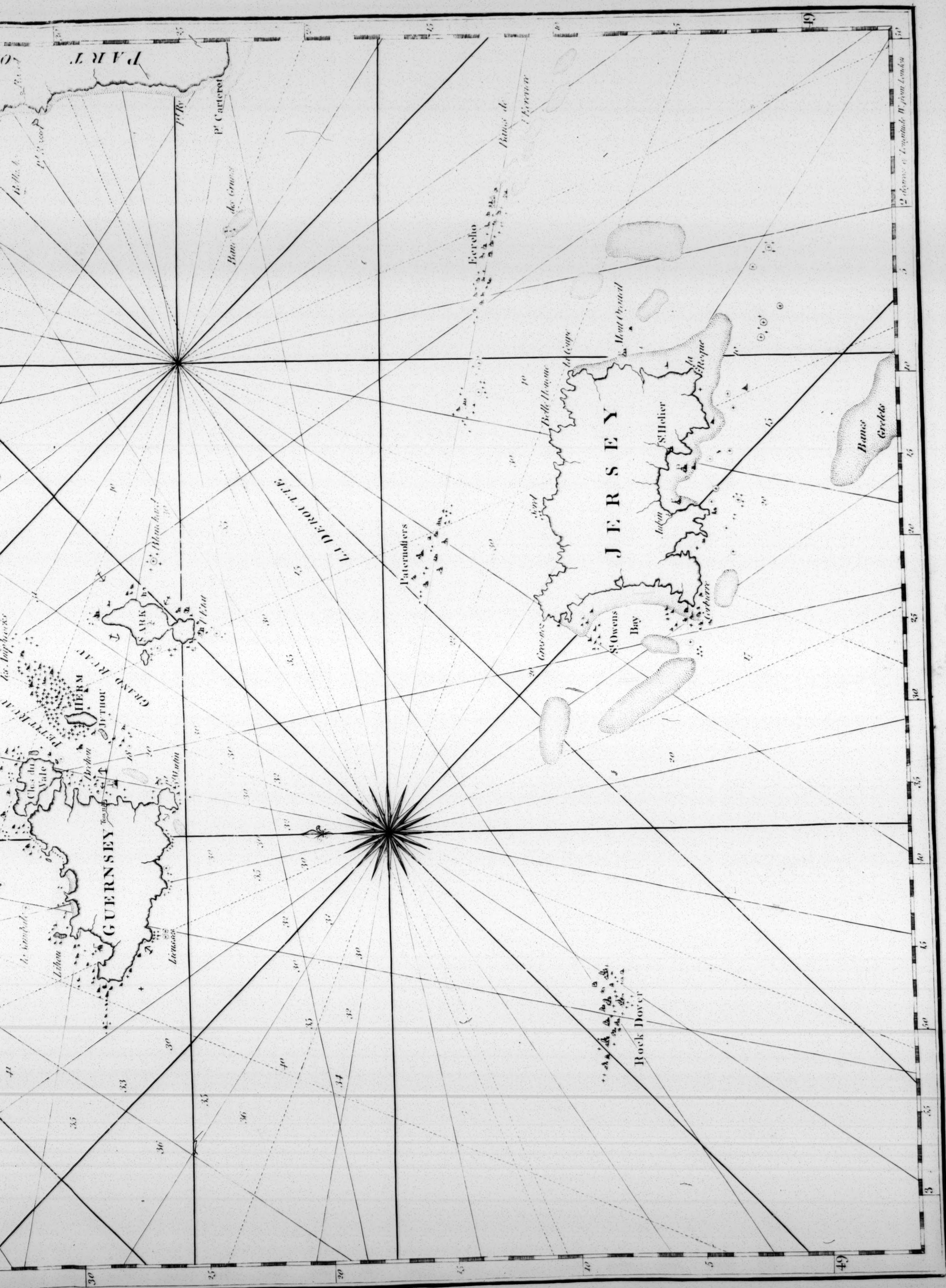














13







 *Recks always above Water.*

④ *Rocks which appear at Low Water.*

+ *Rocks under Water*

*The Figures denote the Number of Fathoms at Low Water Spring Tides.*

## One Sea League.

### Run of the Tide in 12 Hours

le Bisset  
les Hanois  
or Hanaways

## La Lieufse

Tas de Pez d'Aval =

Long Avaleux

Havre de Bonrepos

les<sup>+</sup> Lieusses

La Pip

10

### Petit E

This micrograph shows the interface between the epoxy resin and the carbon fiber. The carbon fiber is visible as a dark, textured area on the left, and the epoxy resin is the lighter, more uniform area on the right. The interface is relatively smooth, indicating good adhesion.

10

*[Faint, illegible text]*

100

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*A NEW CHART*  
OF THE ISLAND OF

G U E R N S E Y.

SARK, HERM and JETHOU;

*Shewing all the Rocks, Shoals and other Dangers  
the Channels, Soundings and Run of the Tides &c.*

*Improved from the Survey made*

*By CAPT DOBREE*

LONDON.

*Published 12<sup>th</sup> May 1794, by LAURIE & WHITTLE, 53, Fleet Street.*















# REMARKS

▲ Rocks seen above water.

⋯ Rocks always under water.

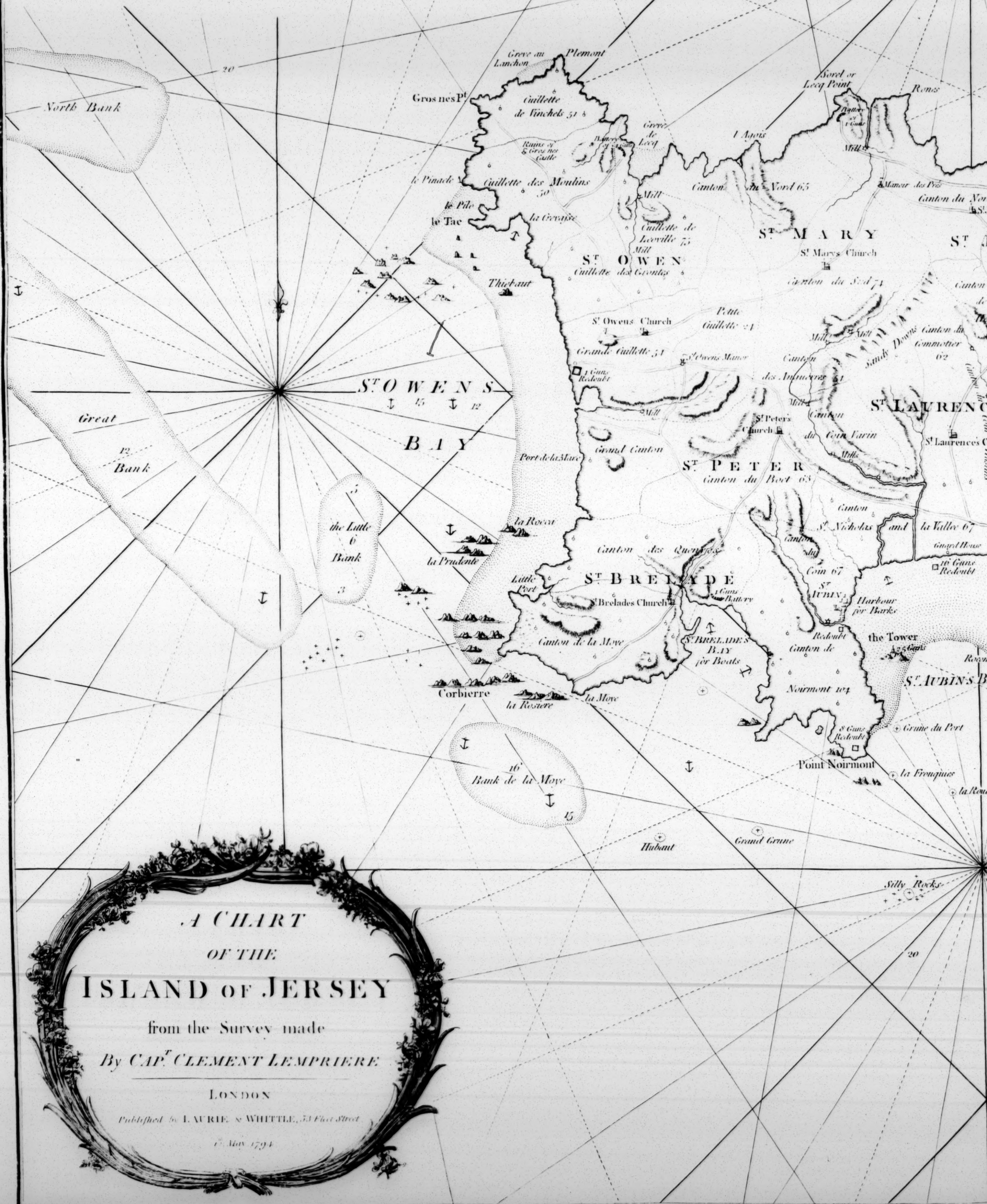
⋆ Rocks seen at Low water.

N.B. The Figures which are within the Island, indicate the Number of Houses in each Canton.

The Figures which are in the Sea shew the Depth of water in Fathoms.

One Sea League.

3 Miles



## A CHART OF THE ISLAND of JERSEY

from the Survey made

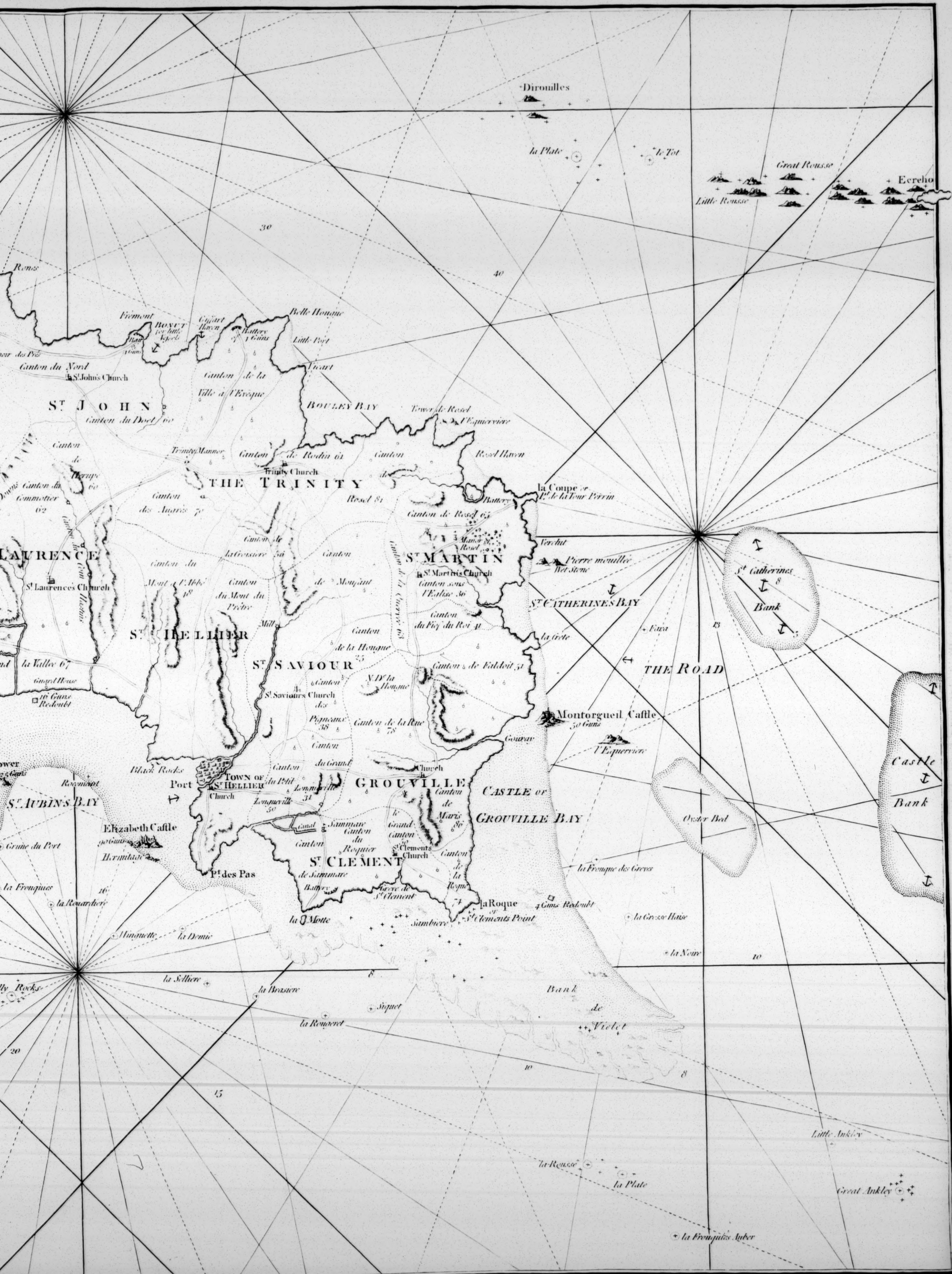
By CAP<sup>T</sup> CLEMENT LEMPRIERE

LONDON

Published by LAURIE & WHITTLE, 53 Fleet Street

1794

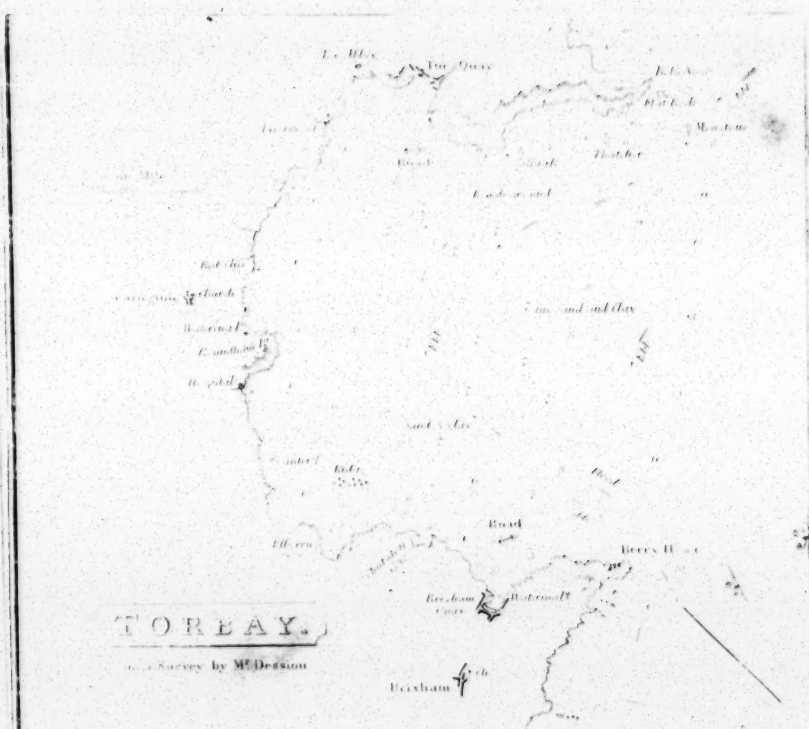






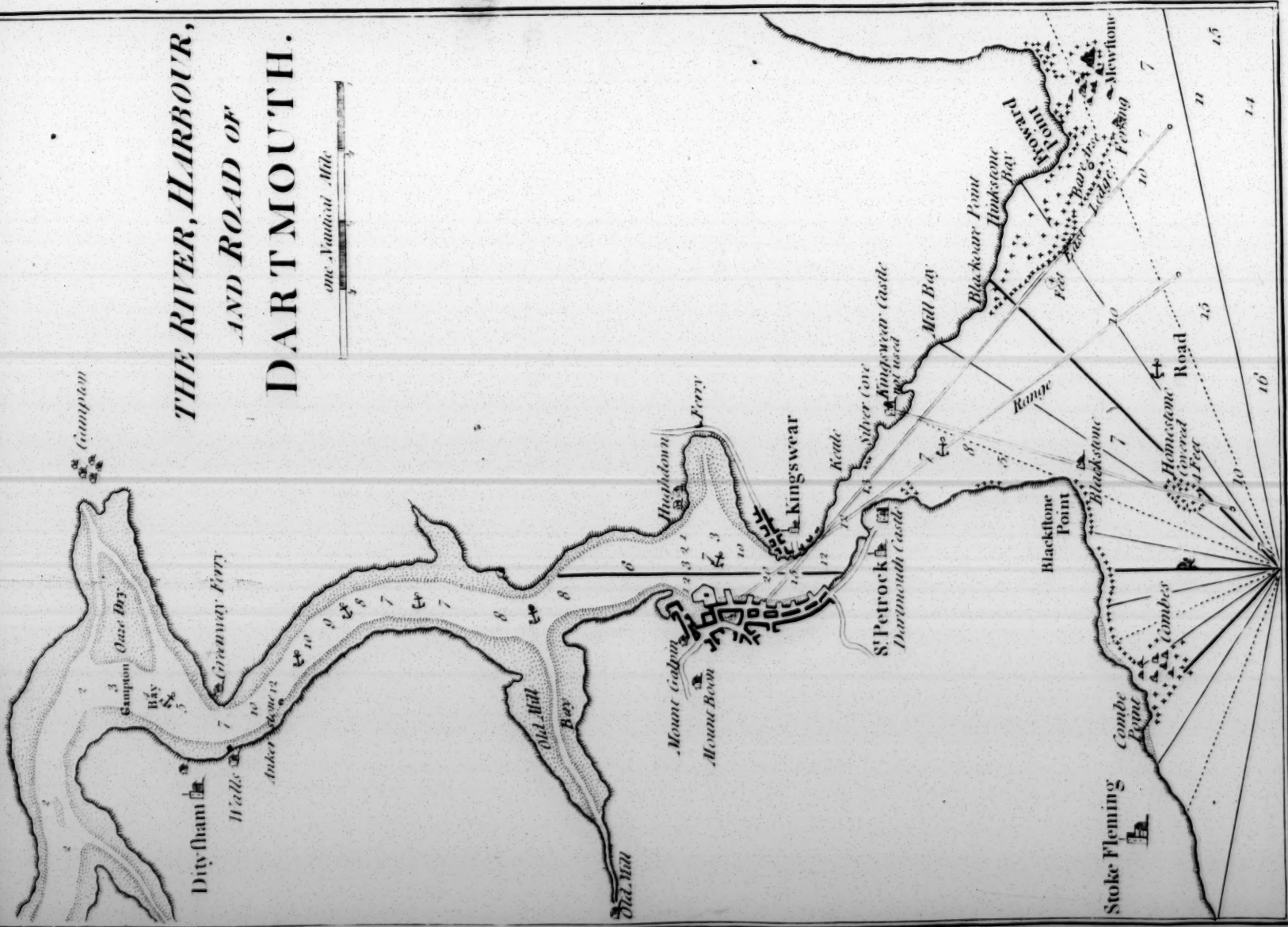








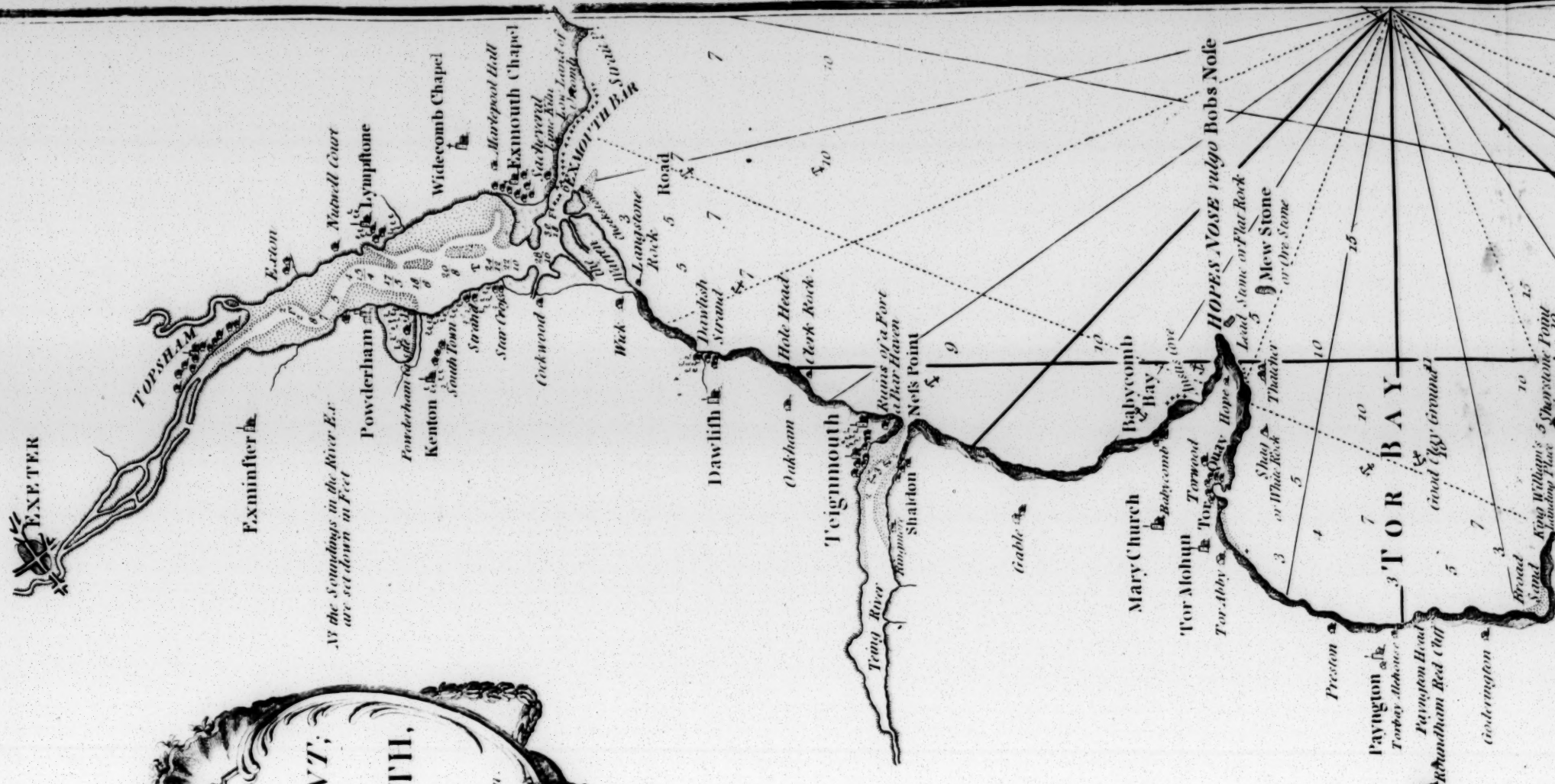
one Nautical Mile



*Thus Appears the Start when Point A. bears S.W. 2 or 3 Leagues off; and*

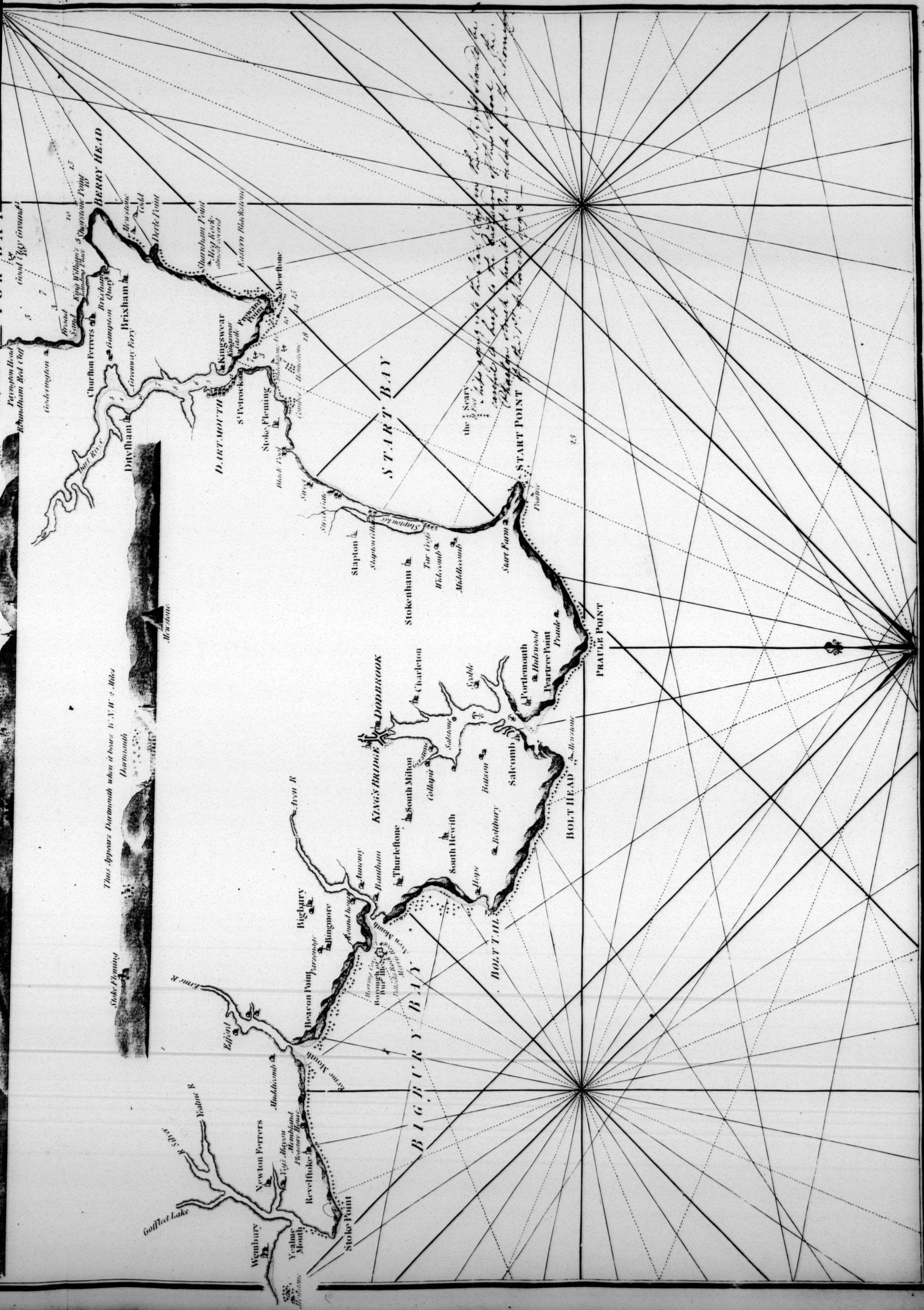
Published 12, May, 1794, by LAURIE & WHITTLE, 53 Fleet Street, London.

### *The Leagues of the Miles*



*Dartmouth, when the Harbour's Mouth at C. bears N. by W. 3 Miles off.*







Point Point

8 1/2 or Two Points in One <sup>by Strait</sup> Point to the next

Berry Head NW 3/4 South -

Delish. No 52 NW

Dawlish Church NW 1/4 W

Row of Red Houses at Exmouth the Centre NW 1/4 E  
on the Beacon Hill -

Cambridge.

7 1/2 fathoms Land & Wharf -

St. H. Lane 1802

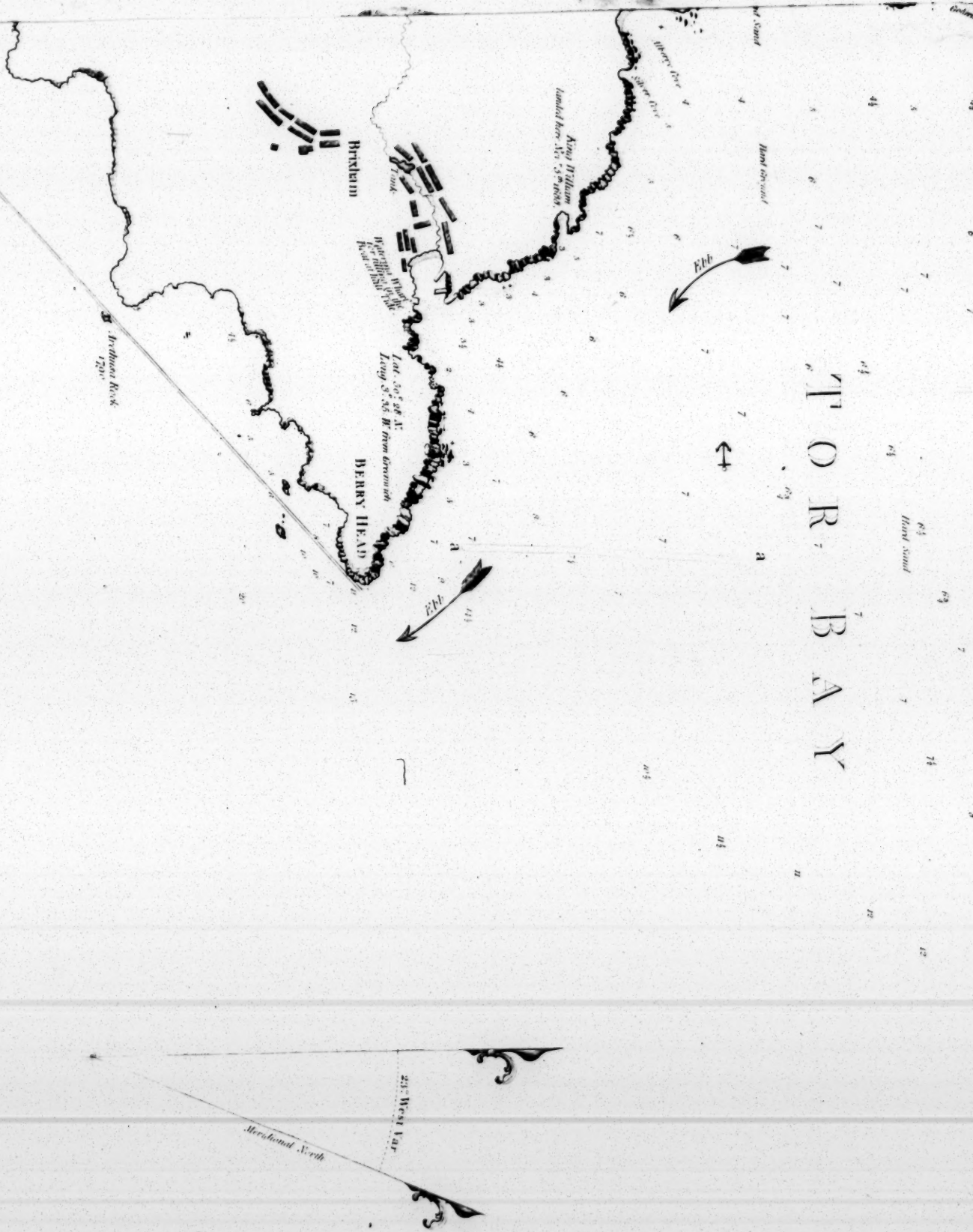






By Compass -  
English Point NW  $\frac{3}{4}$  N      Sailed in  
Strait Point S  $\frac{3}{4}$  N      } 8 fathoms -

Obelisk N. 50° W. by Compass. Sounded in  
Short Point of the next to the } 1/4 left of station  
Eastward in line





## T. &amp; DARTMOUTH RIVER.

Handwritten: *Handwritten*

The Royal. May 1790.

**CTIONS.**

in 6 and 7 Fathoms, and in N.E. or E.N.E. shallered — The predominant rise of the Tide, there at Full and Change, about 6 or 7 feet, makes, which runs a House between Portland and that extent of Coast is pretty free from Shoals. In Snow, driven by the Stream, which runs in Tertiary, will on either Tide, in this advantage, with N.W. and Westerly Winds, ships may be well con Bay. — N.W. of the outer Messmore about two Ships may ride in the Entrance of round, shallered from East or W. of Winds, and thwart.

named, is High and Bold. — The Sunkin Rocks — South of the Coast are one or two —

3 of a *Mt. Eastward of Dartmouth Harbour.*

*Knolls.*

small trail on the Tide.

10 N.

proprietor to Miss Mary's

Feb. 1<sup>st</sup> 1792.

---

remains being near the spot.

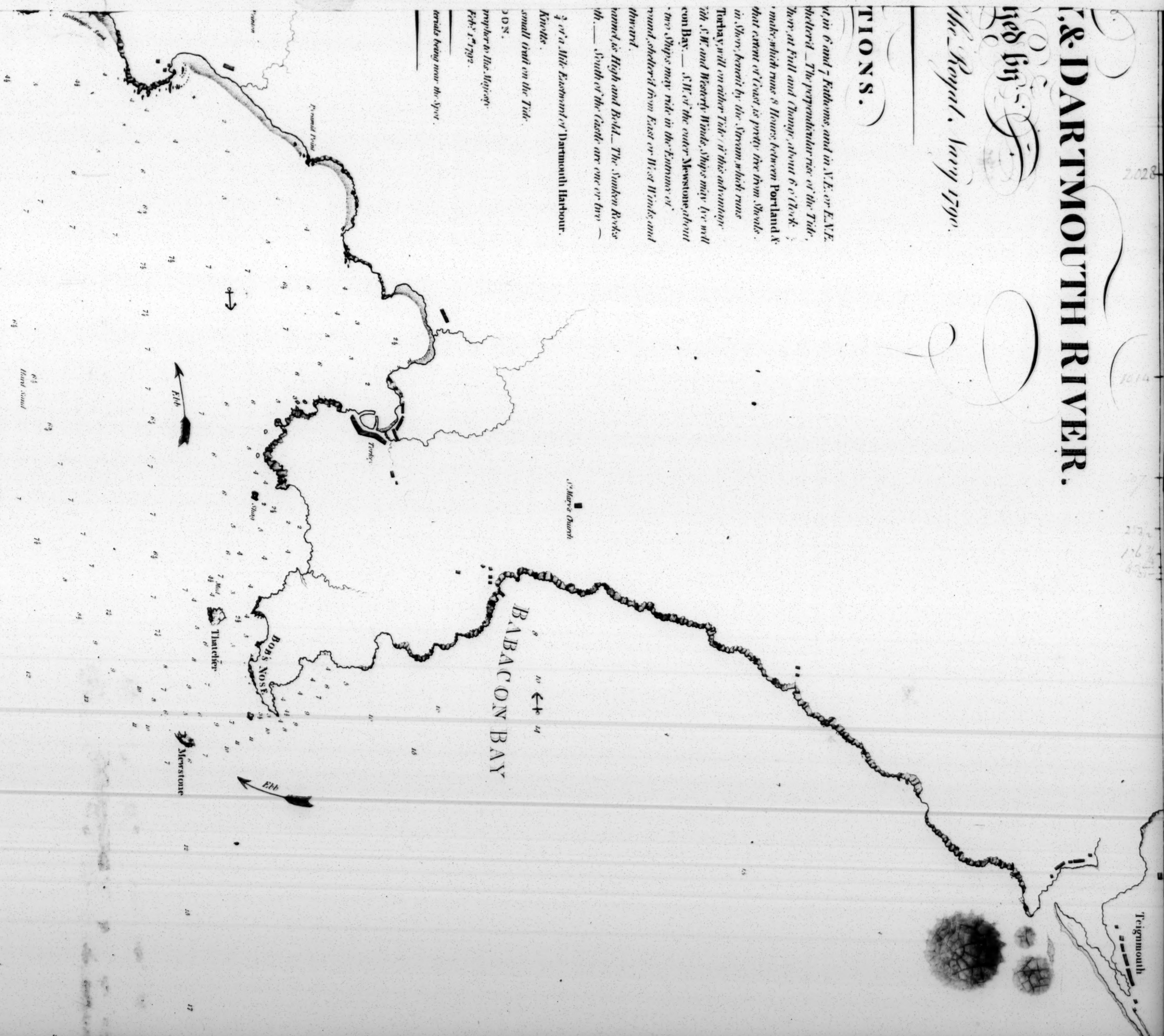
*2 of a Mile Eastward of Dartmouth Harbour.  
Knolls.*

*small bird on the Tide*

DDN.

proprietor to His Majesty  
Feb: 1<sup>st</sup> 1792.

*terials being near the spot.*





By Compass. Sounded in  
Double Point NW  $\frac{1}{4}$  N  
Strait Point  $8\frac{3}{4}$  N } 8 fathoms -

Obelisk N.  $50^{\circ}$  W. by Compass Sounded in  
 Strait Point of the reef to the  $\frac{1}{4}$  left 8 fathoms  
 Eastward in line





# T&DARTMOUTH RIVER.

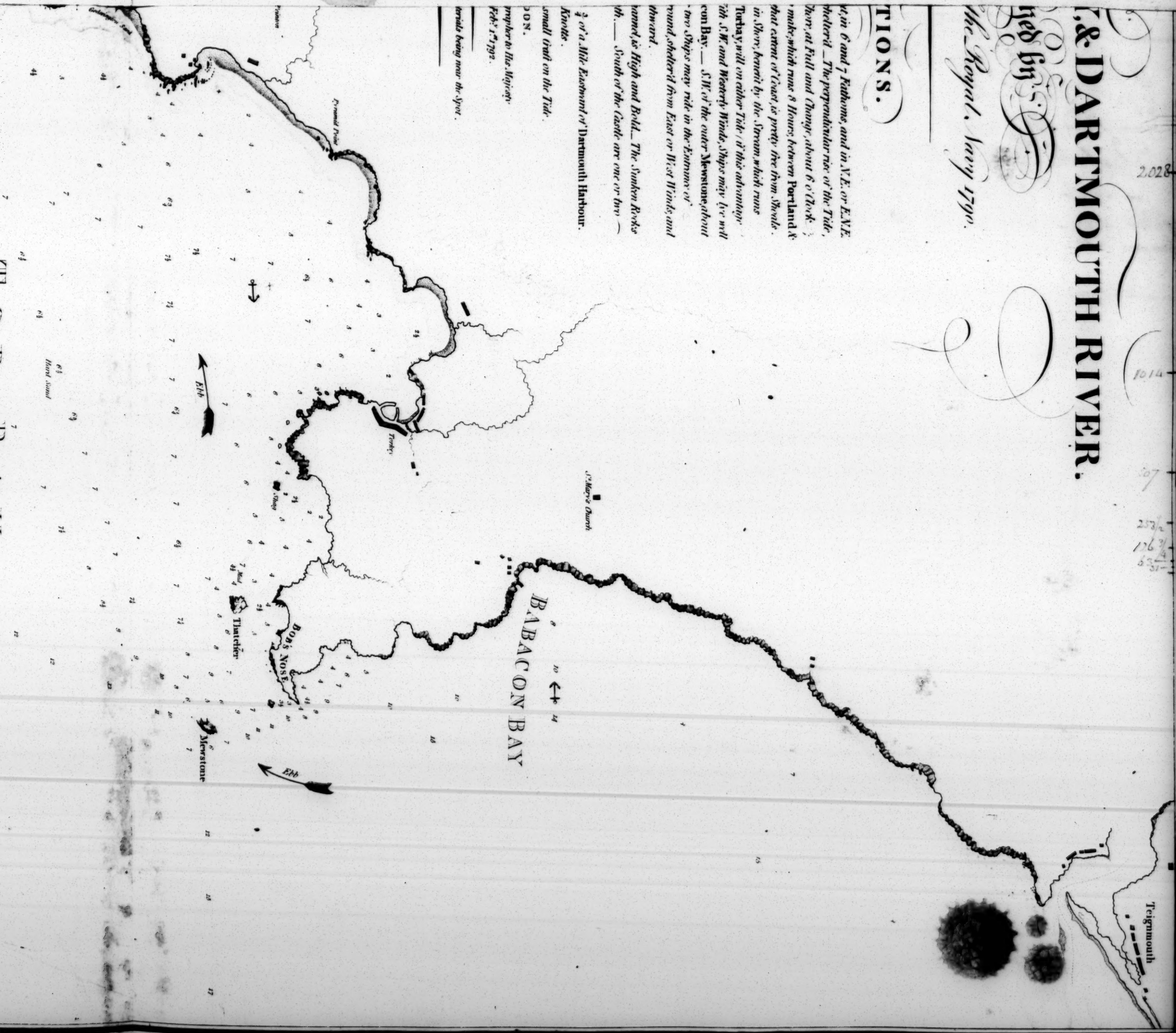
Red by S. S.

The Royal Navy 1790.

## TIONS.

in 6 and 7 Fathoms, and in N.E. or E.N.E. sheltered. The perpendicular rise of the Tide, from at Full and Change, about 6 or 7 fathoms, which runs 8 Hours, between Portland & that extent of Coast, is pretty free from Shallow. in Shore, bounded by the Stream, which runs Tuesday, will on other Tide, if this advantage with S.W. and Westerly Winds, Ships may lie well in Bay. — S.W. of the outer Stones, about two Ships may ride in the Harbour of round, sheltered from East or West Winds, and toward. named as High and Bold. The Stoken Rocks th. — South of the Castle are one or two — 3 of a Mile Eastward of Dartmouth Harbour. Knobs. small craft on the Tide. 208. prepared for the Marine. Feb. 1. 1792. vessels being near the Spot.

When 5 layers of stones below the Bottom round the Pier at Longing are out of the water there are twelve feet water into the Pier —





# TOR BAY, BABACON BAY & DARTMOUTH RIVER.

Surveyed by

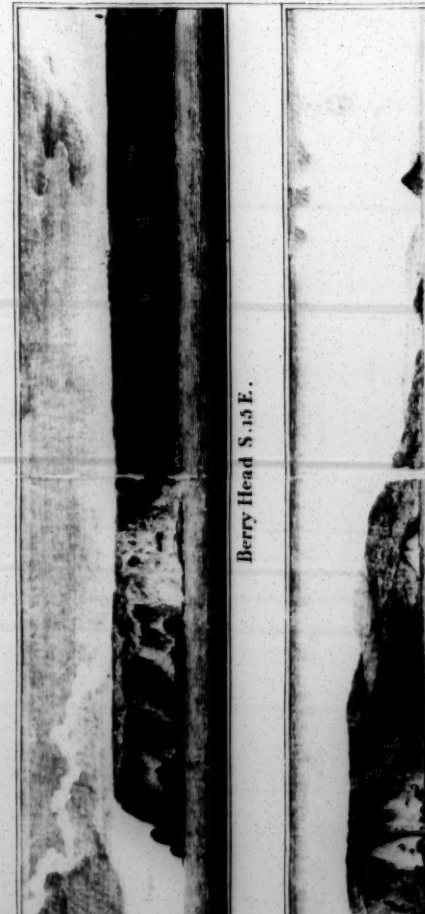
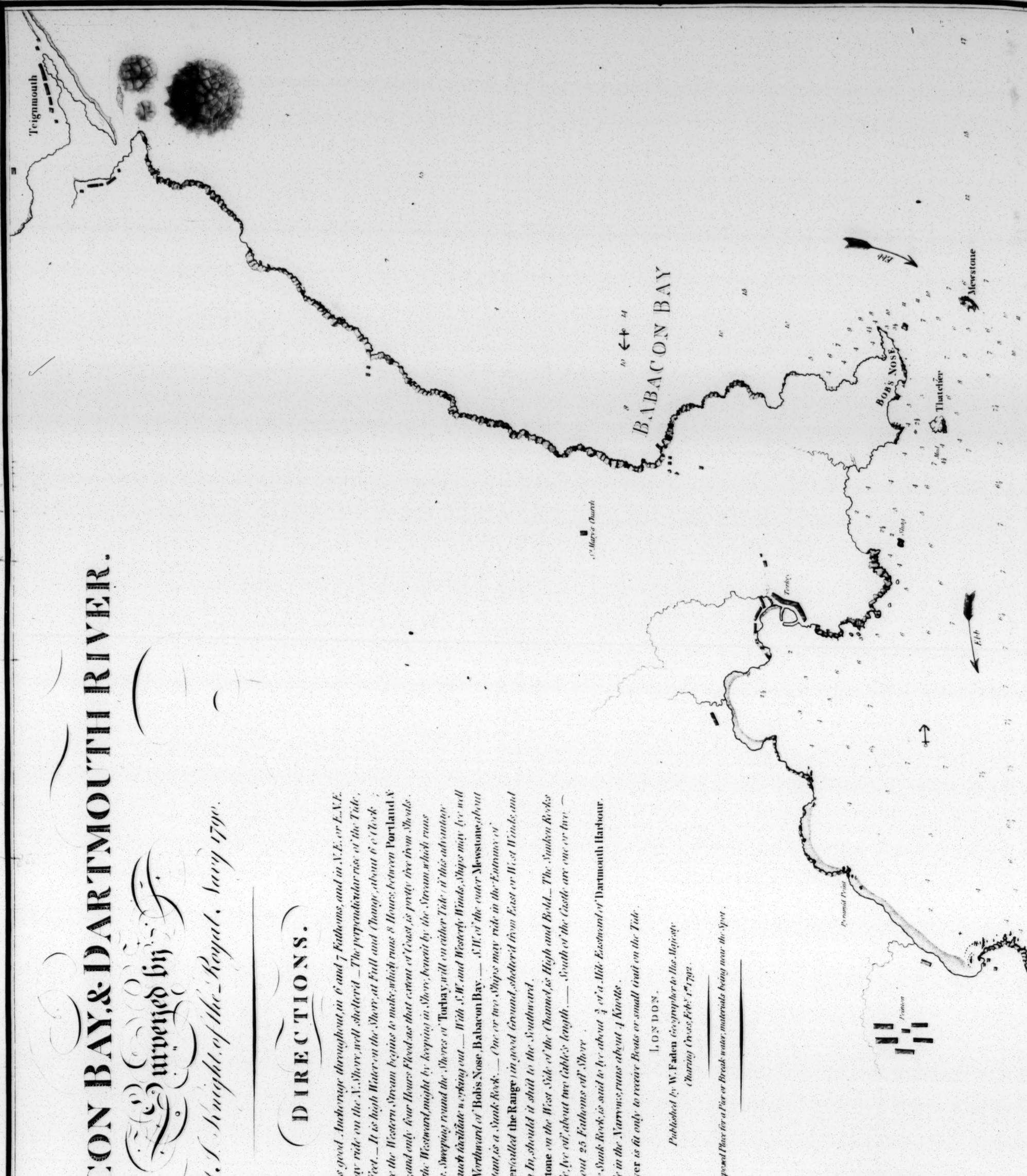
Capt. J. Knight of the Royal Navy 1790.

## DIRECTIONS.

Torbay has good Anchorage throughout in 6 and 7 Fathoms, and in N.E. or E.N.E. Gales, Ships may ride on the N. Shore, well sheltered. The perpendicular rise of the Tide, is from 10 to 18 Feet. It is high Water on the Shore, at Full and Change, about 6 o'Clock, two hours before the Western Stream begins to make, which runs 8 Hours between Portland & the Berry Head, and only four Hours Flood as that current of Coast is pretty free from Shoals. Ships plying to the Westward, might be keeping in Shore, bated by the Stream which runs nearly two Knots. Sweeping round the Shores of Torbay, will on either Tide, if this advantage is attended to, much facilitate working out. With S.W. and Westerly Winds, Ships may lie well sheltered to the Northward of Bob's Nose, Babacon Bay. S.W. of the outer Mewstone, about 40 Fathoms distant is a Sand Rock. One or two Ships may ride in the Eastern end of Dartmouth River, called the Range, in good Ground, sheltered from East or West Winds, and lie ready to run in, should it shill to the Southward. The Blackstone on the West Side of the Channel, is High and Bold. The Sanden Rocks on the East Side, lie off about two Cables length. South of the Castle are one or two Sanden Rocks, about 25 Fathoms off Shore. A Single Sanden Rock, is said to lie about 3 or 4 Mile Eastward of Dartmouth Harbour. The Tide in the Narrows, runs about 4 Knots. Teignmouth River is fit only to receive Boats or small craft on the Tide.

LONDON.  
Published by W. Faden Geographer to His Majesty  
Charing Cross, Feb. 1792.

a a. Proposed Place for a Pier or Break water, materials being near the Spot.









# TOR BAY, BABACON BAY, & DARTMOUTH RIVER.

Surveyed by  
*Cap<sup>t</sup>. J. Knight, of the Royal Navy 1790.*

## DIRECTIONS.

Torbay has good Anchorage throughout in 6 and 7 Fathoms, and in N.E. or E.N.E. Gales, Ships may ride on the N. Shore, well sheltered. — The perpendicular rise of the Tide, is from 10 to 18 Feet. — It is high Water on the Shore, at Full and Change, about 6 o'Clock; two hours before the Western Stream begins to make, which runs 8 Hours, between Portland & the Berry Head, and only four Hours Flood as that extent of Coast, is pretty free from Shoals. Ships plying to the Westward might by keeping in Shore, benefit by the Stream, which runs nearly two Knots. Sweeping round the Shores of Torbay, will on either Tide, if this advantage is attended to, much facilitate working out. — With S.W. and Westerly Winds, Ships may lie well sheltered to the Northward of Bob's Nose, Babacon Bay. — S.W. of the outer Newstone about 40 Fathoms distant, is a Sunk Rock. — One or two Ships may ride in the Entrance of Dartmouth River (called the Range) in good Ground, sheltered from East or West Winds, and lie ready to run In, should it shift to the Southward.

The Blackstone on the West Side of the Channel, is High and Bold. — The Sunk Rocks on the East Side, lie off, about two Cables length. — South of the Castle are one or two Sunk Rocks, about 25 Fathoms off Shore.

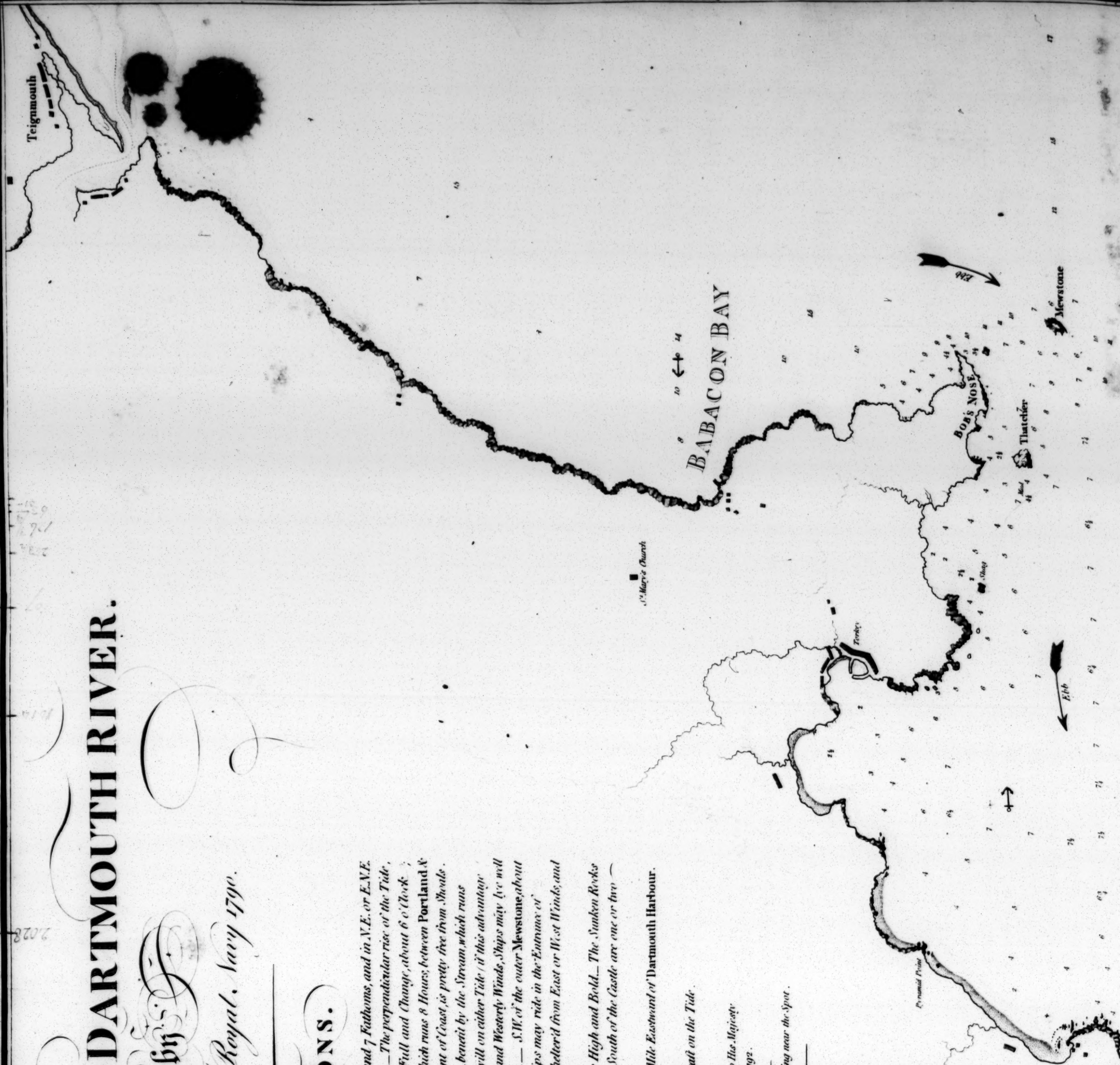
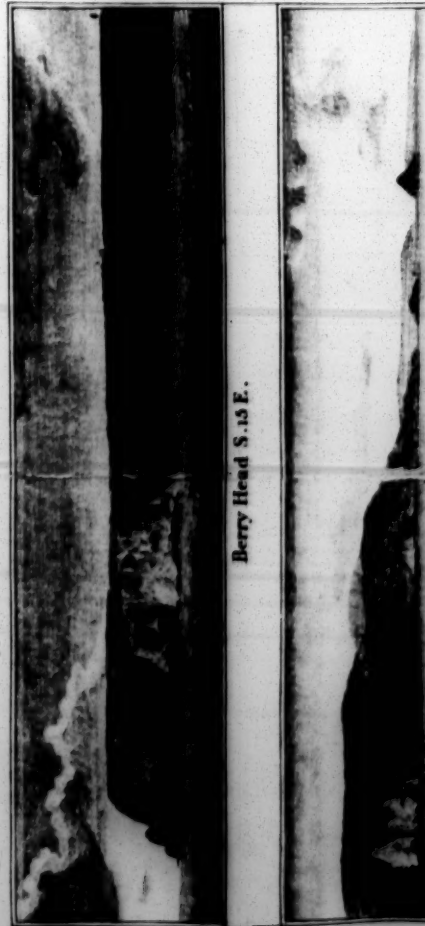
A Single Sunk Rock, is said to lie about  $\frac{3}{4}$  of a Mile Eastward of Dartmouth Harbour. — The Tide in the Narrows, runs about 4 Knots.

Teignmouth River is fit only to receive Boats or small craft on the Tide.

LONDON.

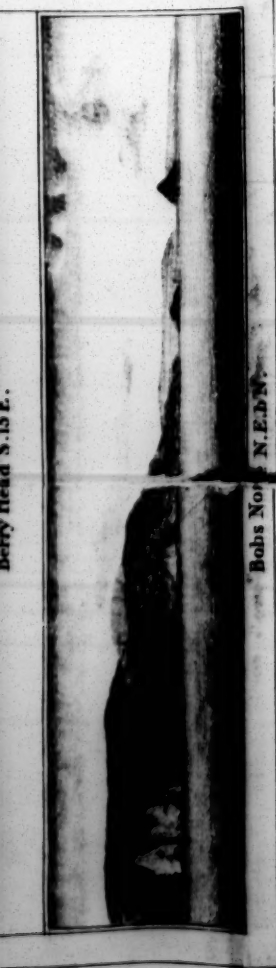
Published by W. Faden, Geographer to His Majesty.  
 (Charing Cross, Feb<sup>y</sup> 1<sup>st</sup> 1792.)

a. a. — Proposed Place for a Pier or Break-water, materials being near the Spot.





Berry Head S. 13 E.

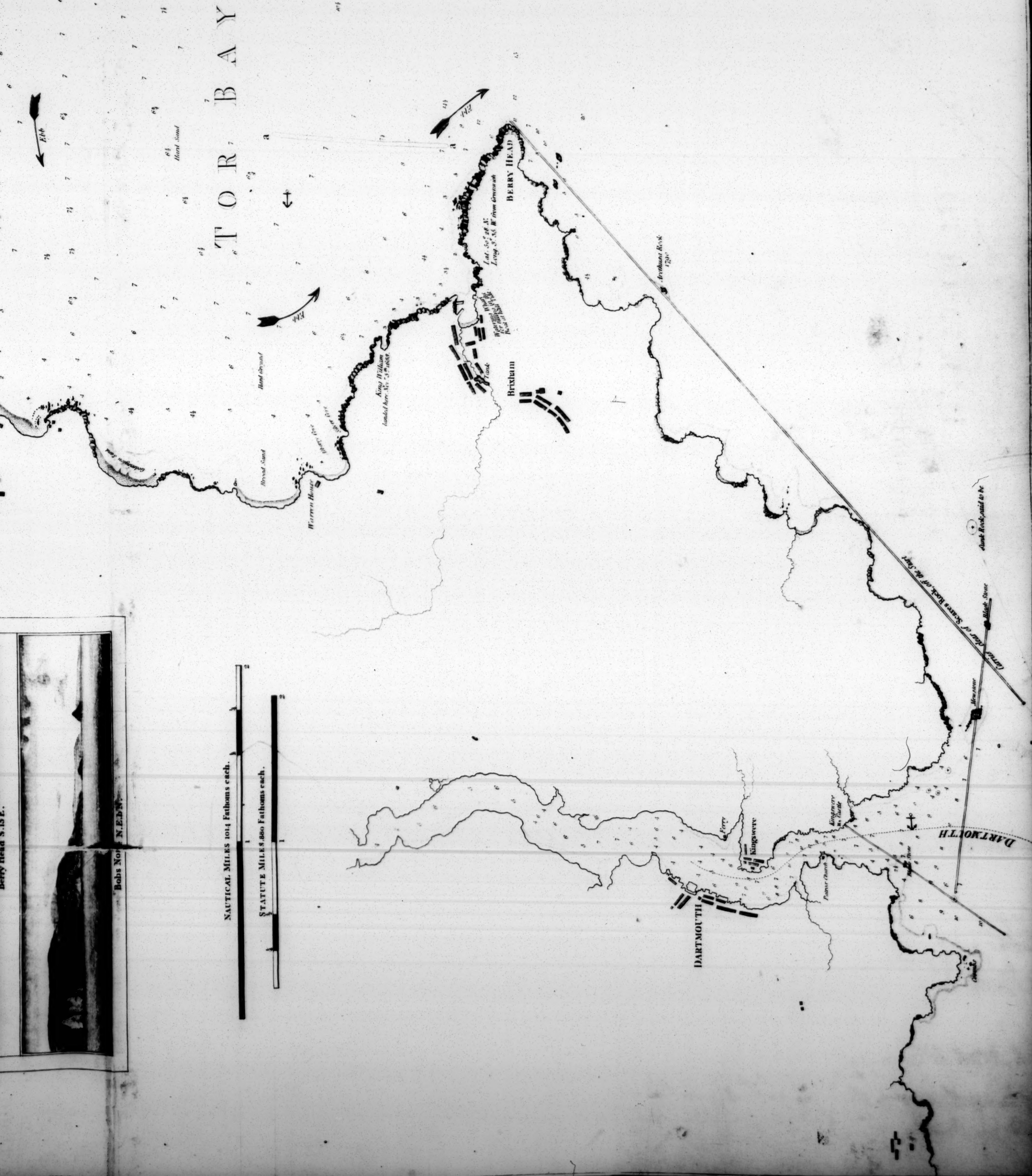


Bobs Not N. E. S. S.

NAUTICAL MILES 1014 Fathoms each.



STATUTE MILES 860 Fathoms each.



Thatcher

Newstone

17

18

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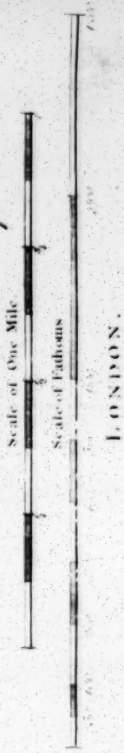






# PLYMOUTH SOUND, HAMOAZE and CATWATER

*SURVEYED in 1780.*



LONDON.

Published 1781 by J. LARKE & WHITTE, 53 Fleet Street London.

At The Figures express the Depth in Fathoms at Low Water Spring Tides.

The Detached Banks are all Dry at Low Water.

The Rocks show 5' 1' at Full and Change.

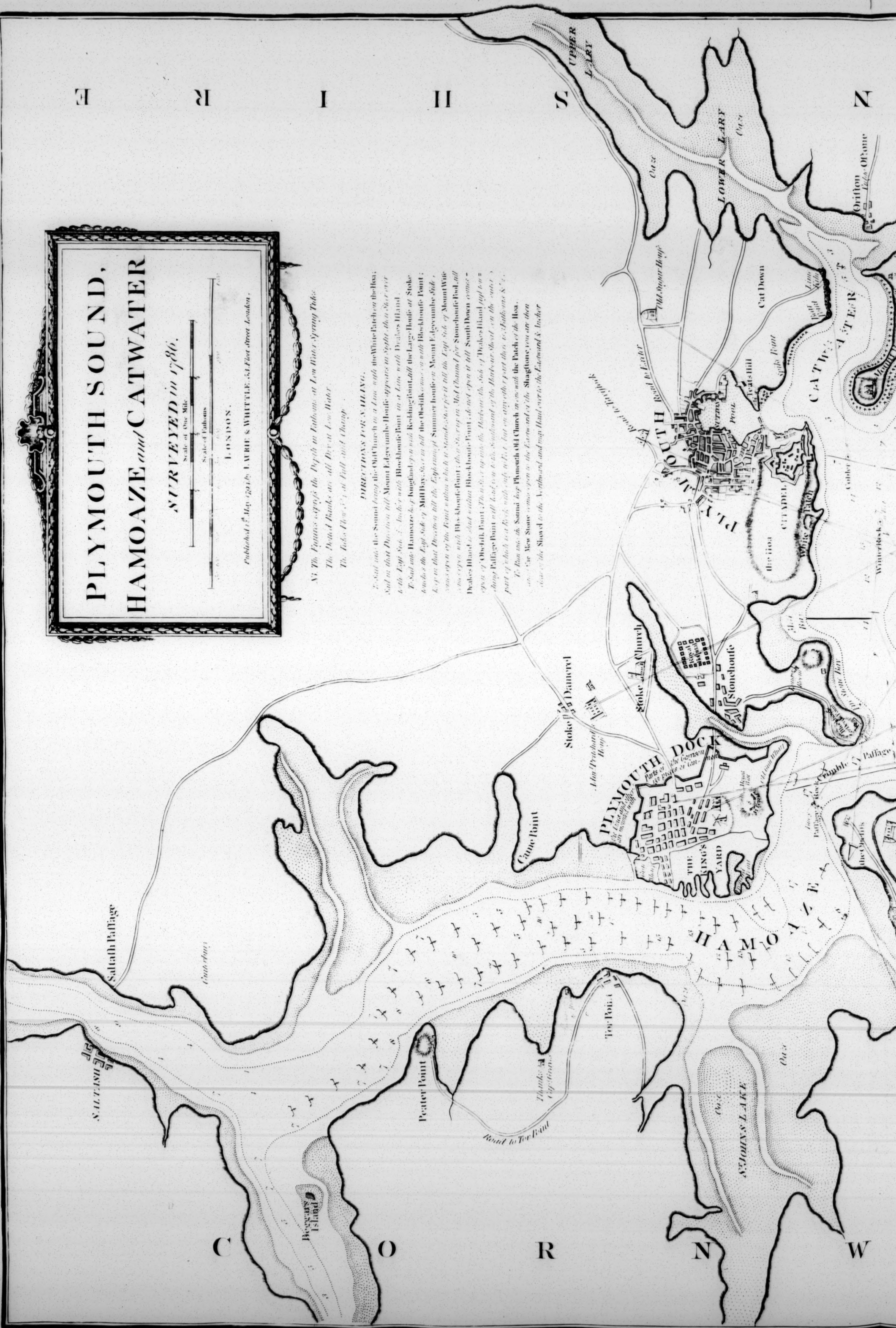
## DIRECTIONS FOR SAILING.

1. Sail into the Sound from the Old Church in a Line with the White Patch on the Head; Sail in that Direction till Mount Edgemoor House appears in sight, then steer over to the Light Side 3/4 Anchor with Blackhouse Point in a Line with Dukes Island.

2. Sail into Hamoaze by Boughland open with Redoubt Point, till the Large House at Stoke Newick is the Light Side of Mill Bay; then in full the Obelisk comes up with Blackhouse Point; keep on that Direction till the Light comes up with Mount Edgemoor House, all comes open of the Point within which it stands, then pierce it till the Light Side of Mount White comes open with Blackhouse Point; then steer up in Mill Channel for Stonehouse Pool, all comes open with Blackhouse Point; do not open it till South Down comes.

Dukes Island is dead within Blackhouse Point; do not open it till South Down comes; change Pallage Point will lead you to the Southward of the Harbour Street, on the water, part of which is a rock with only 12 ft. but on any other part there is 15 fathoms S. 1/2 E.

3. Run into the Sound by Plymouth Old Church in a Line with the Patch of the Head; in a Line with the New Stone comes open to the Eastward of the Shagstone you are then clear of the Shoal to the Westward and may haul over to the Diamond & Anchor.

















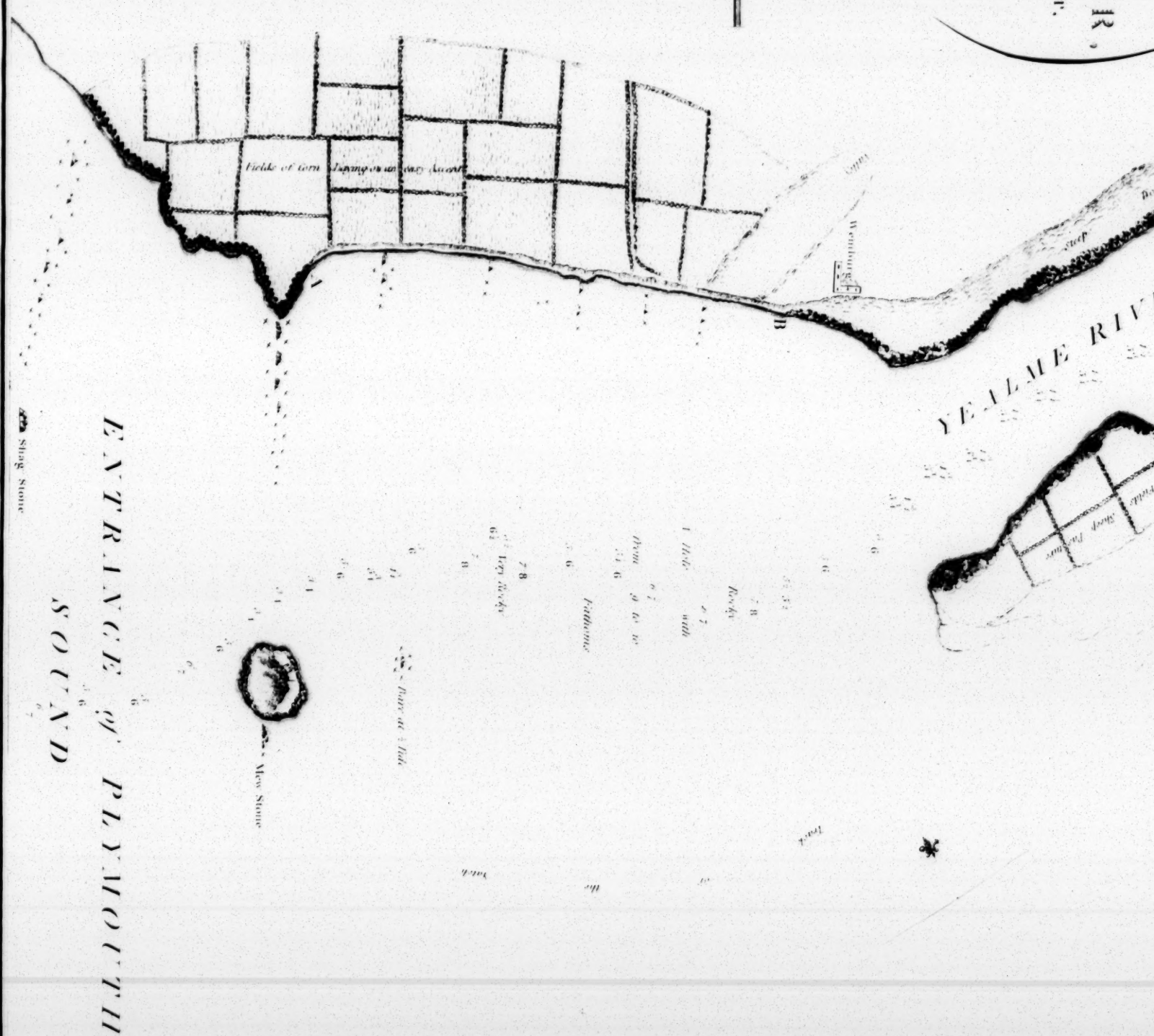
# ENTRANCE OF YEALME RIVER, with the Depths of Water.

Published according to  
Dr LAURE and WHITTELL.  
New Plan third  
LONDON

Two Hundred Fathoms

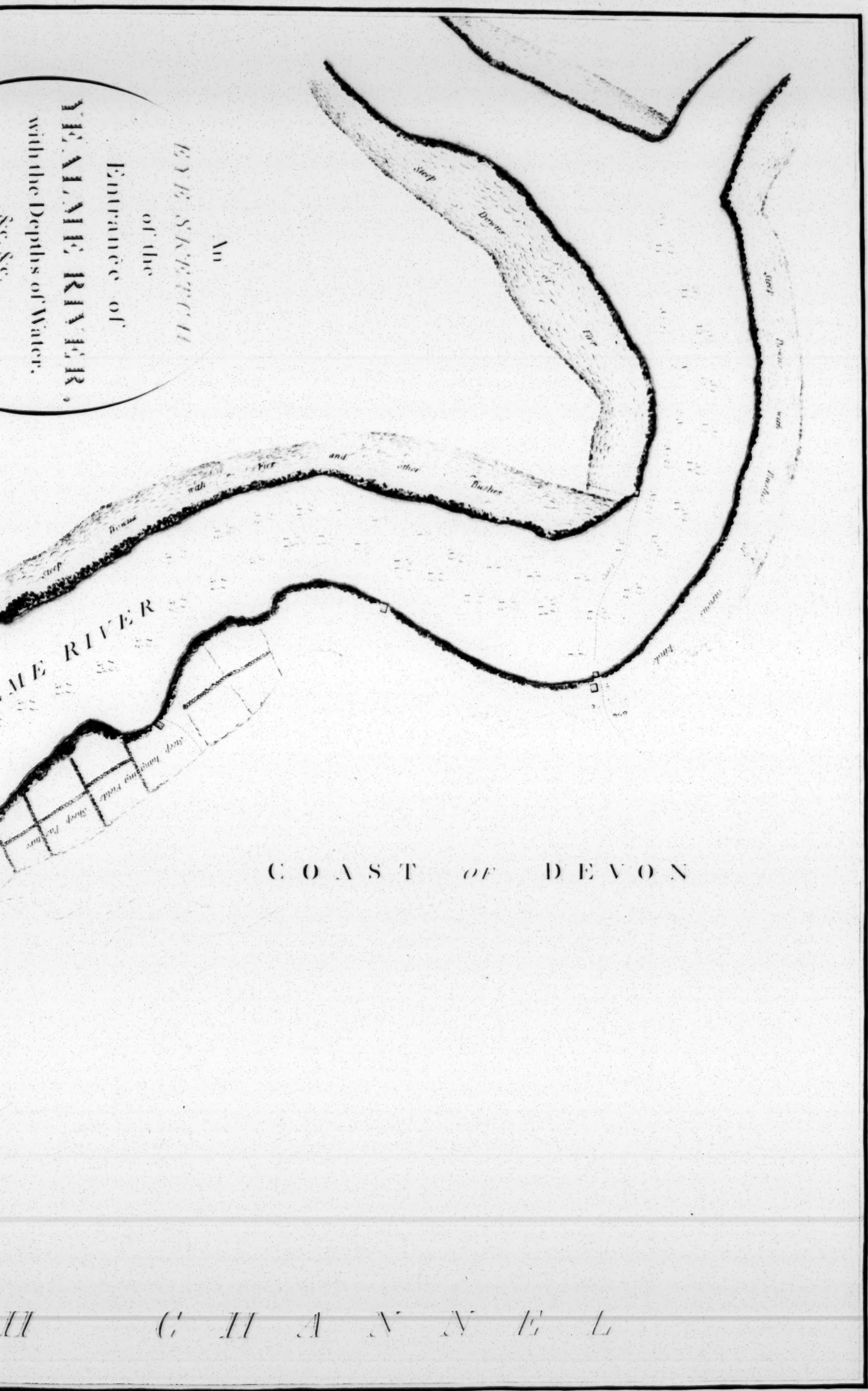
## REFERENCES.

Between Sand and Low and High water is a foot high.  
The depth of the river is a foot high.  
Note the Roman figures at the depth of the river.  
The depth of the river is a foot high.  
The depth of the river is a foot high.



T H E B R I T I S H

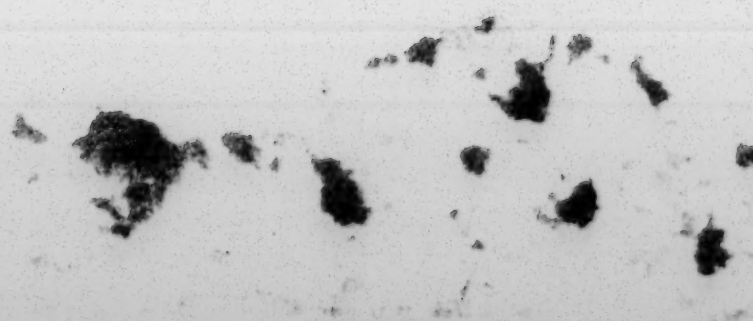
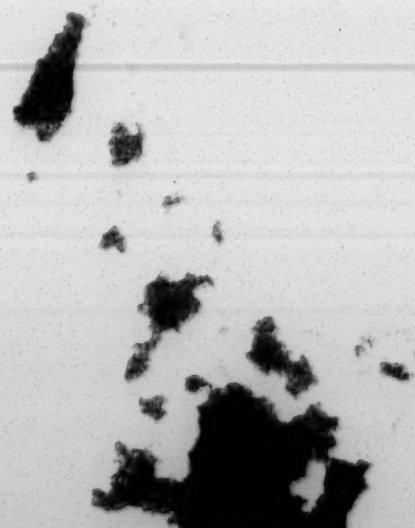
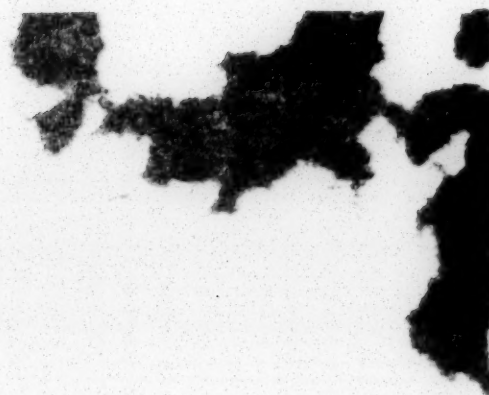
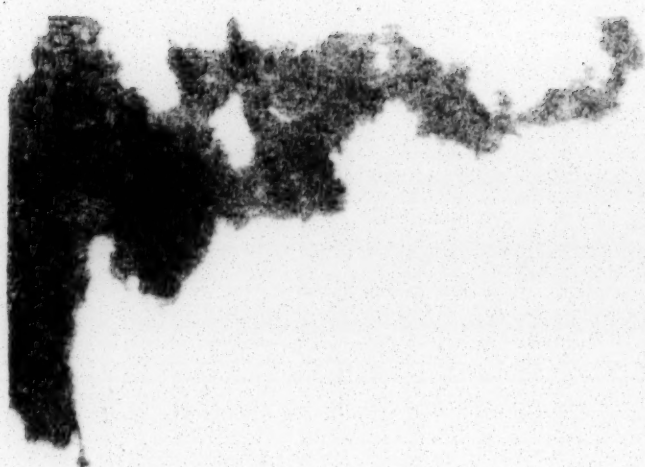
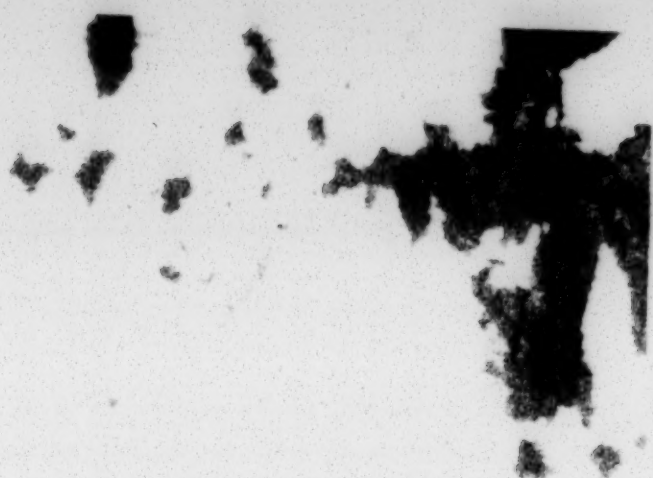














# *A PLAN* *OF THE* **ROAD AND HARBOUR OF** **FOWEY or FOY.** BY LIEUT. JAMES COOK of the Royal Navy. *Published 1780. By LAURIE & WHITTLE, 53 Fleet Street, London.*

Scale of One Mile.

Plan of Fowey when it bears N. E. by N. to the Compass, This or Four Miles off.

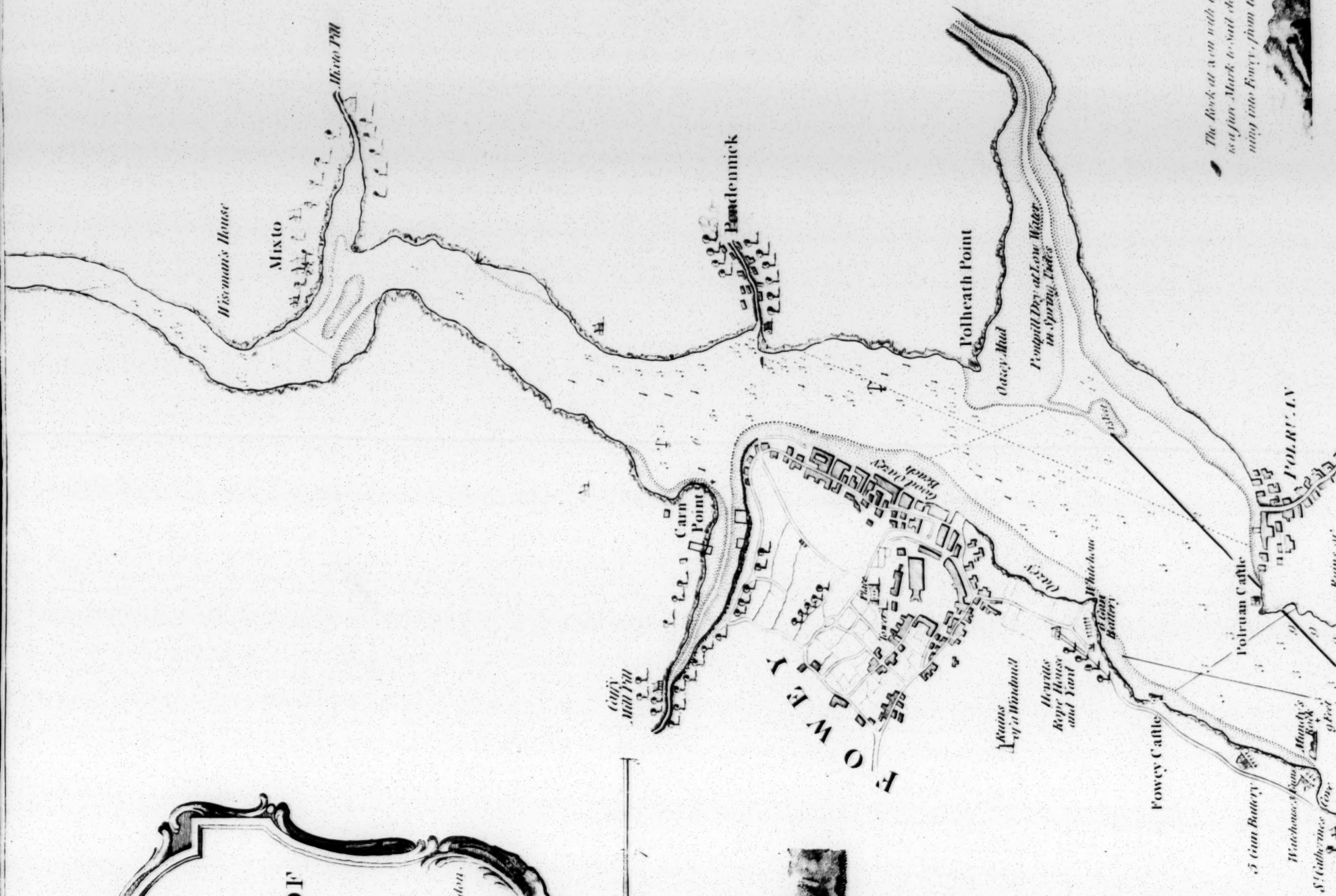


## **OBSERVATIONS.**

Fowey is described by Collins in his *Cruising Plot*, and by the Author of the *Mariner's Calendar* to N. E. from Deadman's Point about 1 League's distance, but it differs from the Description given by these Authors of its Entrance in the following Particulars. First having no Church on the Western Shore, nor Pleasure House on the Eastern one, and the Beacon also as described by Collins on Predmuth Point is not now remaining.

Secondly, All the Soundings in this Plan may be depended on to be the smallest extreme at the Lowest Ebb, on a Spring Tide, as also for the number of Fathoms except where the Letters F are added for Feet.

Coomb

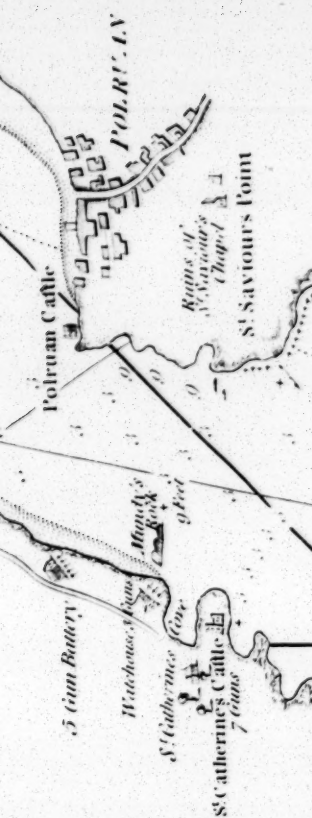


The Rock at a on with the Deadman in the manner is a fine Mark to sail clear of the Ganges Rock run - ning into Fowey, from the Wighand.

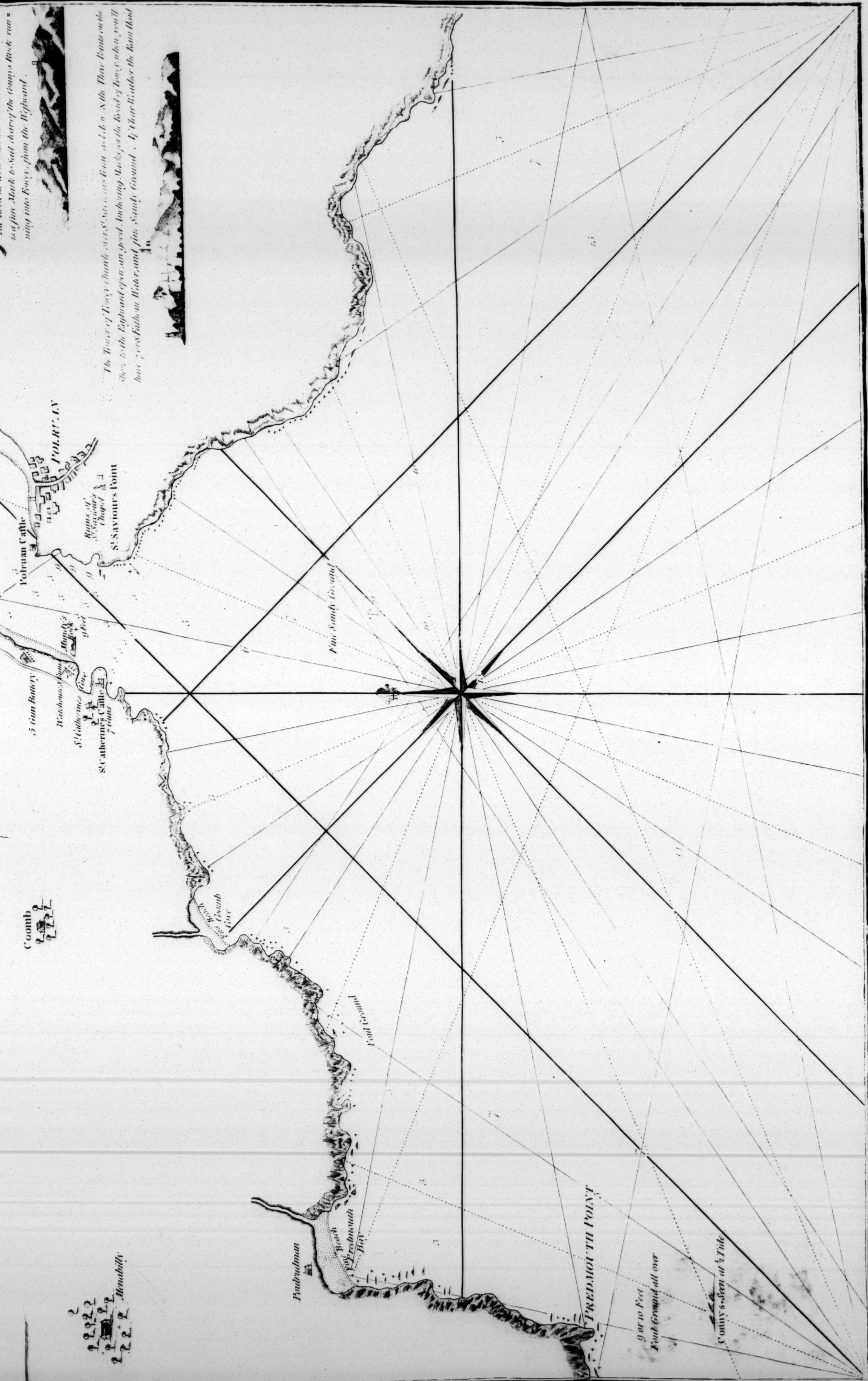




The Power of Tongue, Church, and State, as seen in John N. the Three Princes on the shore, to the Englishman on a great, bucking, black, or the Lord of Tongue when you'll have your faith in Water, and Jim Sandy Ground, & their Wishes the King that



Comb 2222

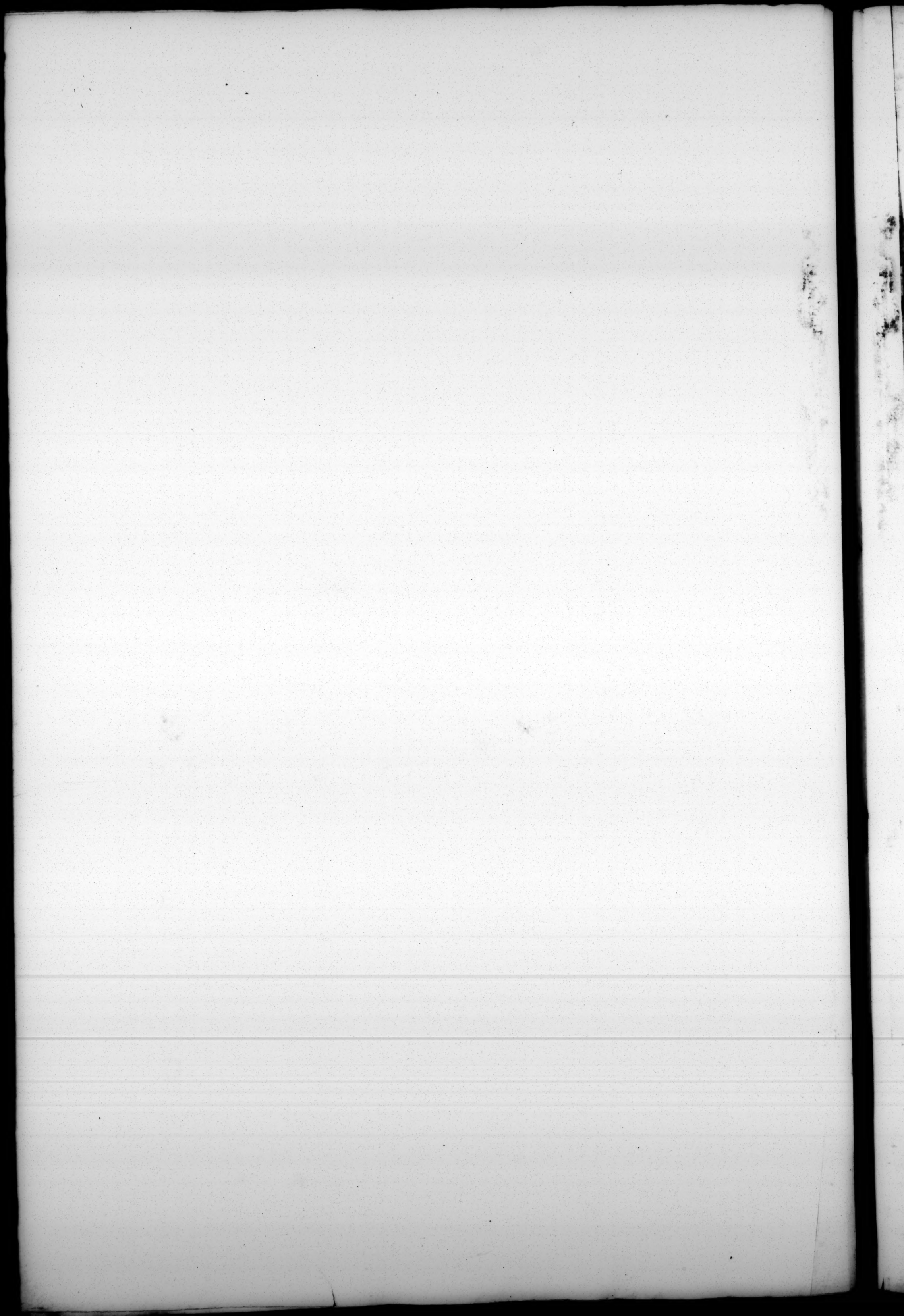


PREDMOUTH POINT

9 or 10 Feet;  
Font Grouped all over

*Conius* s. *Seen at 1/2 Tide*









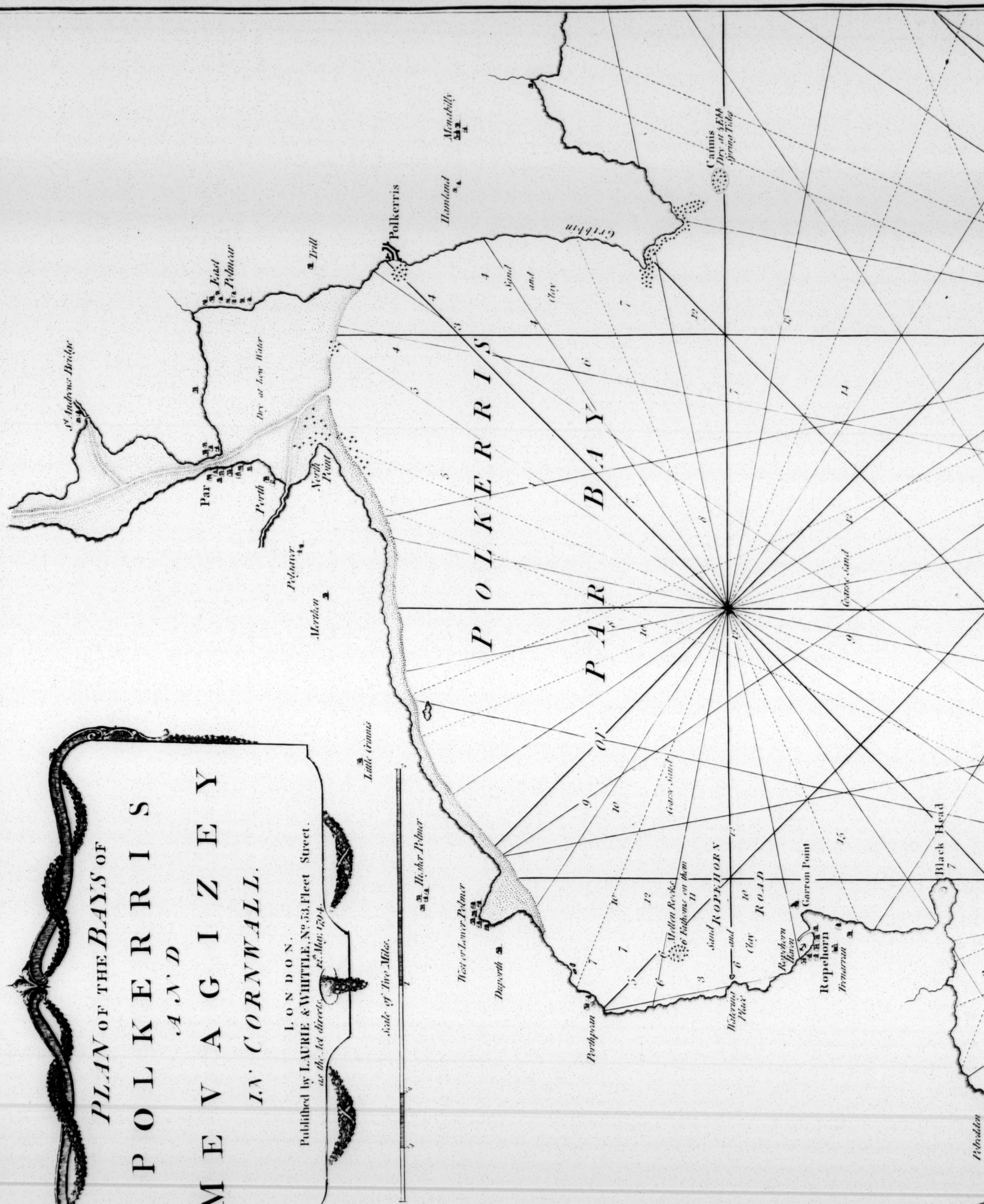


PLAN OF THE *BAYS* OF  
POLKERRIS  
*AND*  
MEVAGIZY  
*IN* CORNWALL.

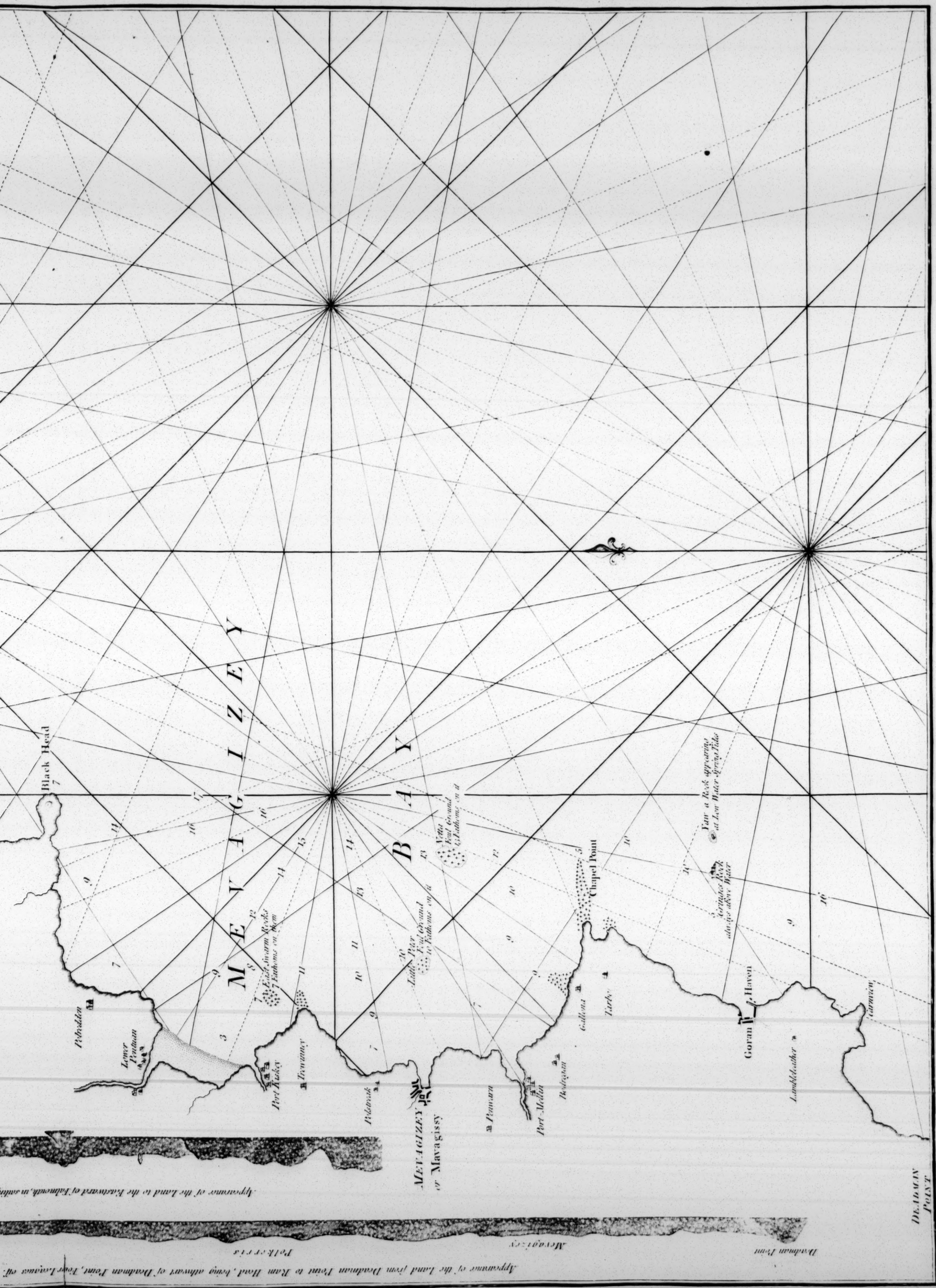
LONDON.  
Published by LAURIE & WHITTLE, No. 53, Fleet Street,  
*as they let direct.* *Ed. May 1794.*

Published by LAURIE & WHITTLE, No 53, Fleet Street,  
as the 1st direct<sup>ed</sup> P<sup>ost</sup>. Mon: 1794.

as the 1st directs,





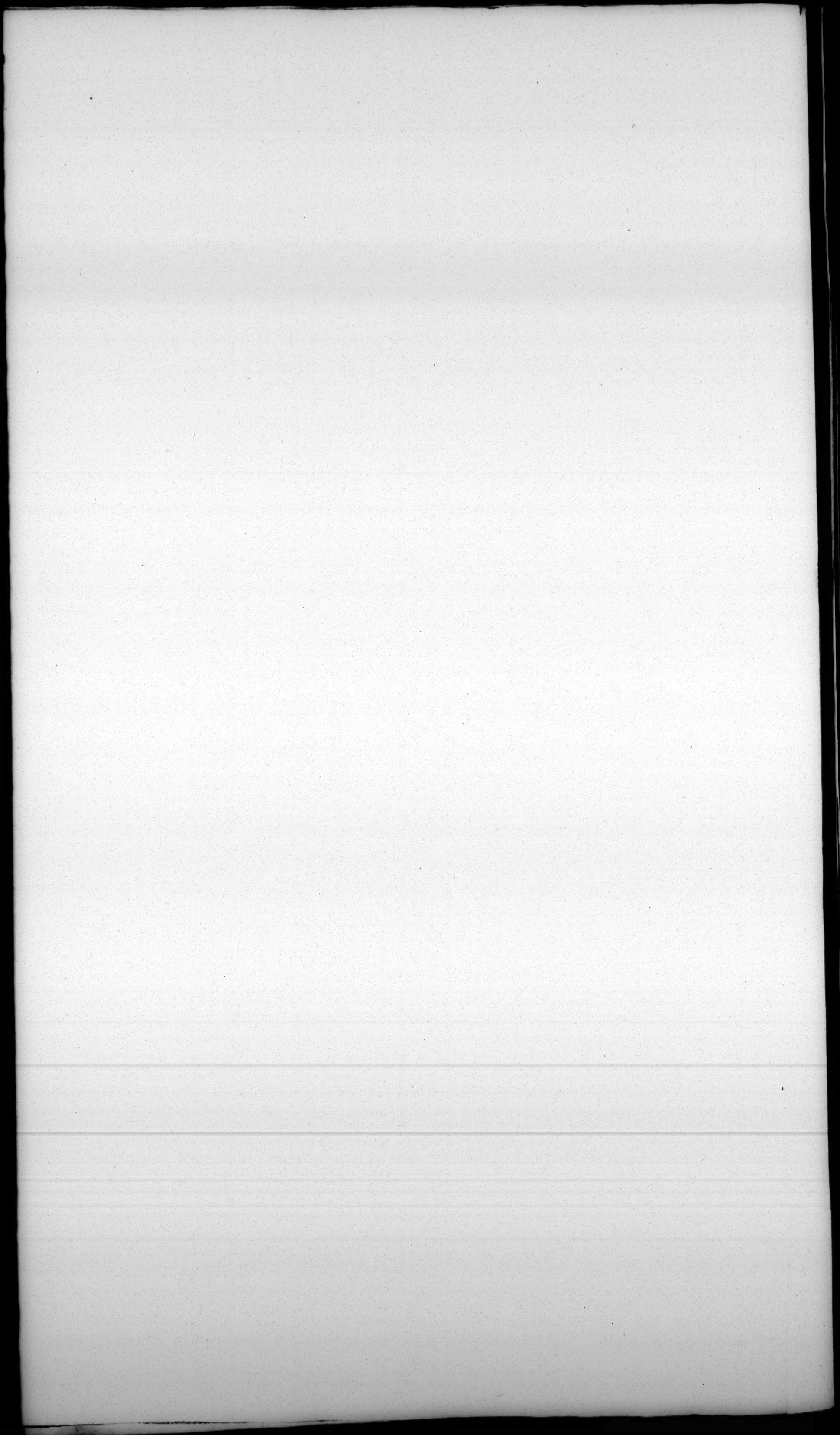


Apparatus of the Land from Breadman Point to Kamm Head, being situated of Breadman Point, Tower Lighthouse off.  
Polkerris

MEVAGIZZEY  
or Mavagissy

Breadman Point







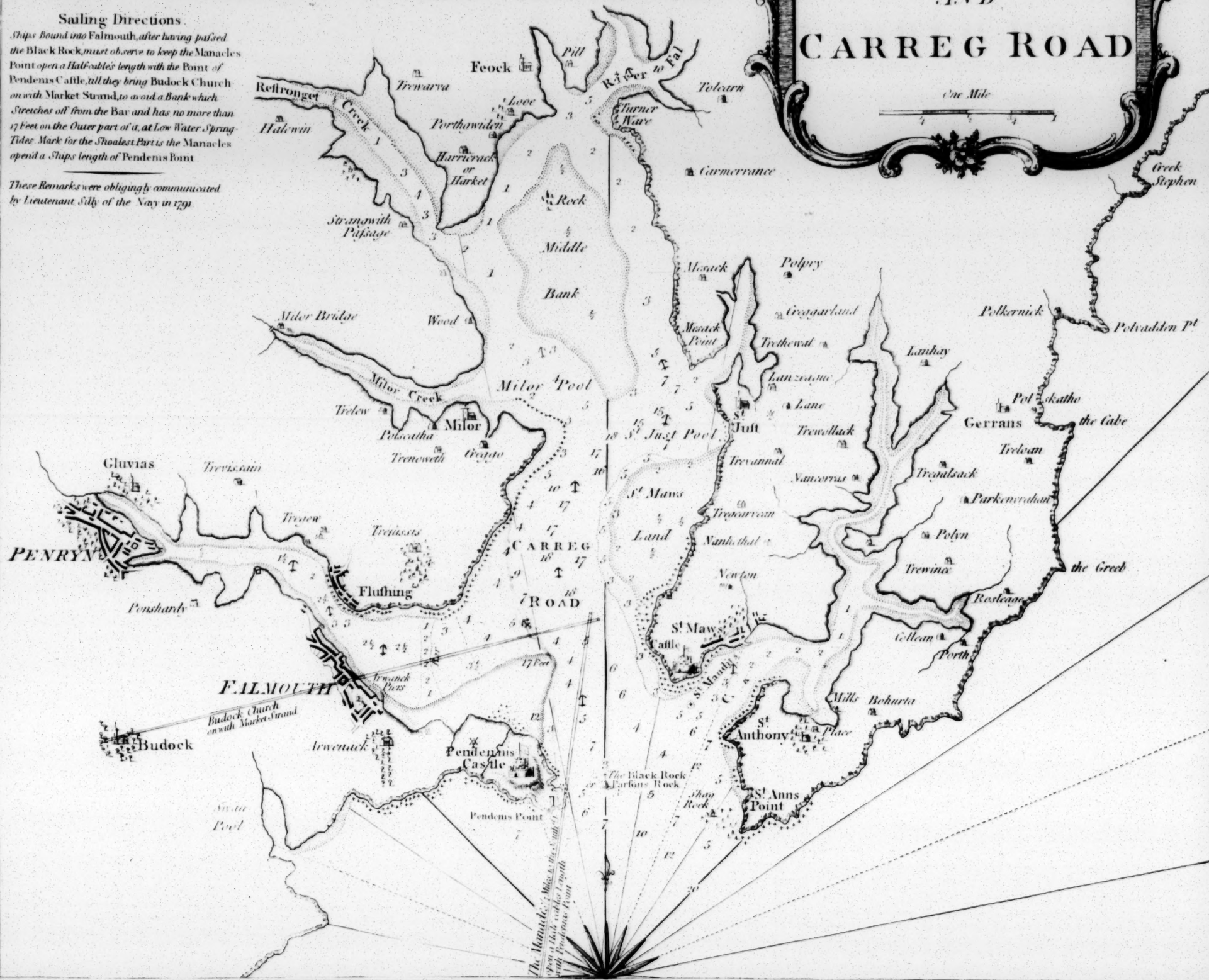
The Going into Falmouth when Pendennis Castle bears N. W. by N. Two Leagues.



#### Sailing Directions

Ships bound into Falmouth, after having passed the Black Rock must observe to keep the Manacles Point open a Half-cable's length with the Point of Pendennis Castle, till they bring Budock Church on with Market Strand to avoid a Bank which stretches off from the Bar and has no more than 17 feet on the Outer part of it, at Low Water Spring Tides. Mark for the Shoalest Part is the Manacles Point a Ship's length of Pendennis Point.

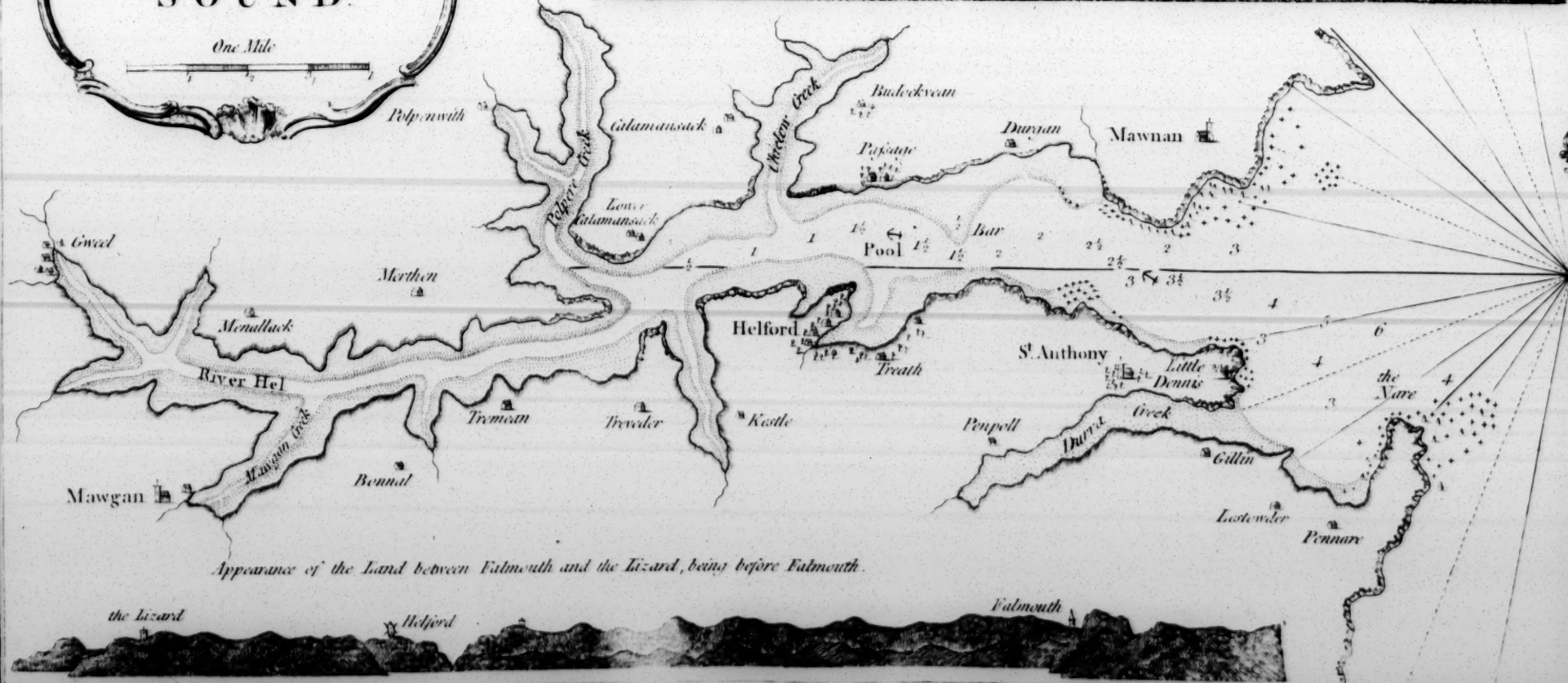
These Remarks were obligingly communicated by Lieutenant Silby of the Navy in 1799.



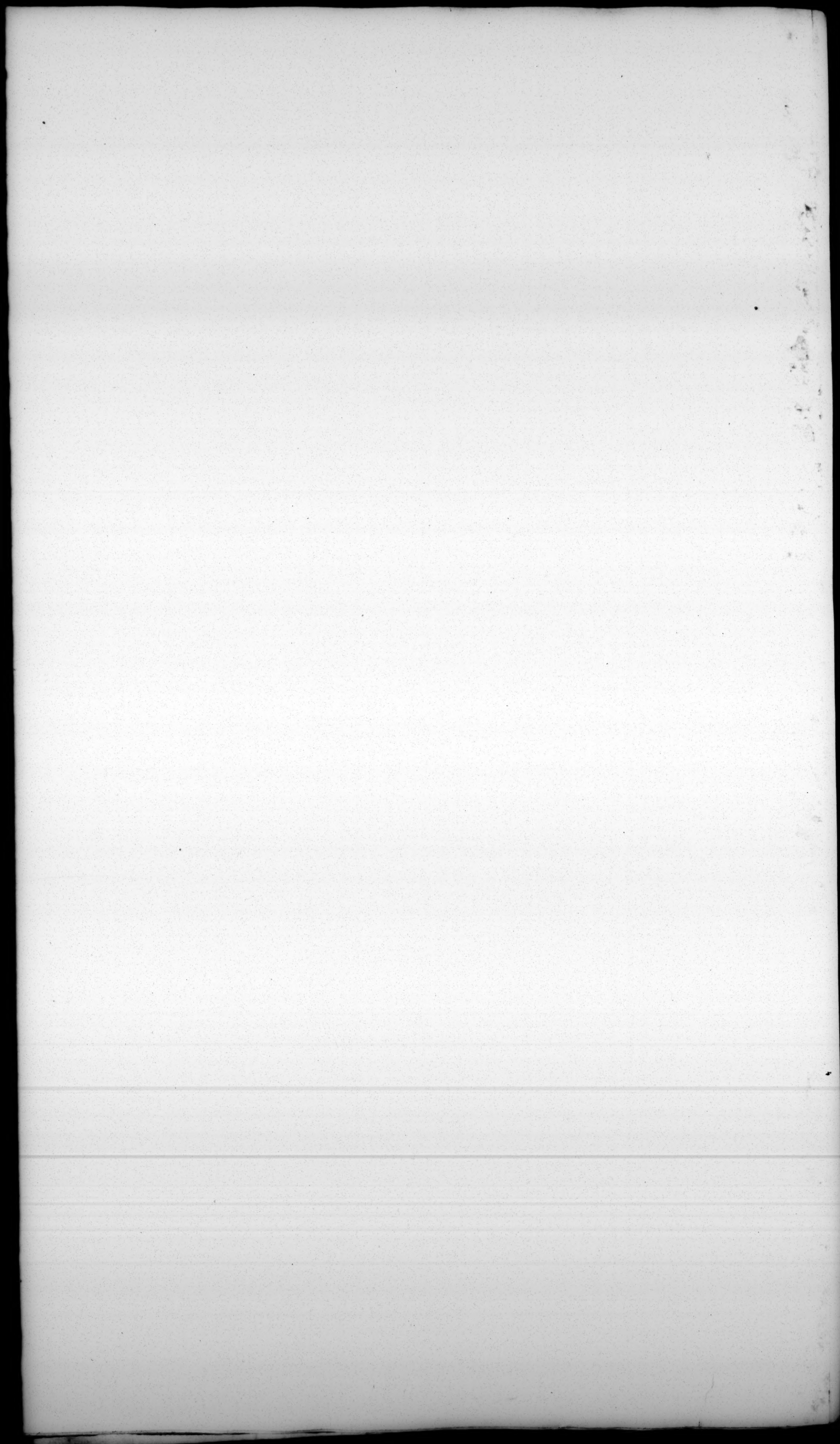
#### HELFORD SOUND.

One Mile

Going into Helford Sound when its Entrance bears West Two Leagues.













*Marks for clearing the Channel*

*Highest Part of God of this Hill open of Sea. Does clear the Channel to the South East  
 Highest Part of Cliff inside of Lands End, open with the Toll-Pole. Penwith a sail's breadth clear the Channel to the S.W.*

*The Corn Brier is dangerous place. Sea breaks heavy & the  
 Tides run very strong at this time*



*the Gulf commonly  
 the Wolfe a sharp Rock  
 above water at High Tide*



*The S. W. Water*

*St. Michael's Mount N.E. Good Harbour  
F. Compagn.*

NAUTIC SURVEY

MOUNTS BAY

CORNWALL,

the Adjacent Coast

LIZARD to CAPE CORNWALL

by WILLIAM DENYS, with Useful Additions.

by LAURIE & WHITTLE, No 53, Fleet Street.

1794

Appearance of the Land between the Lizard and the Lands End, the Lizard bearing E. by N. and Mount's Bay N.



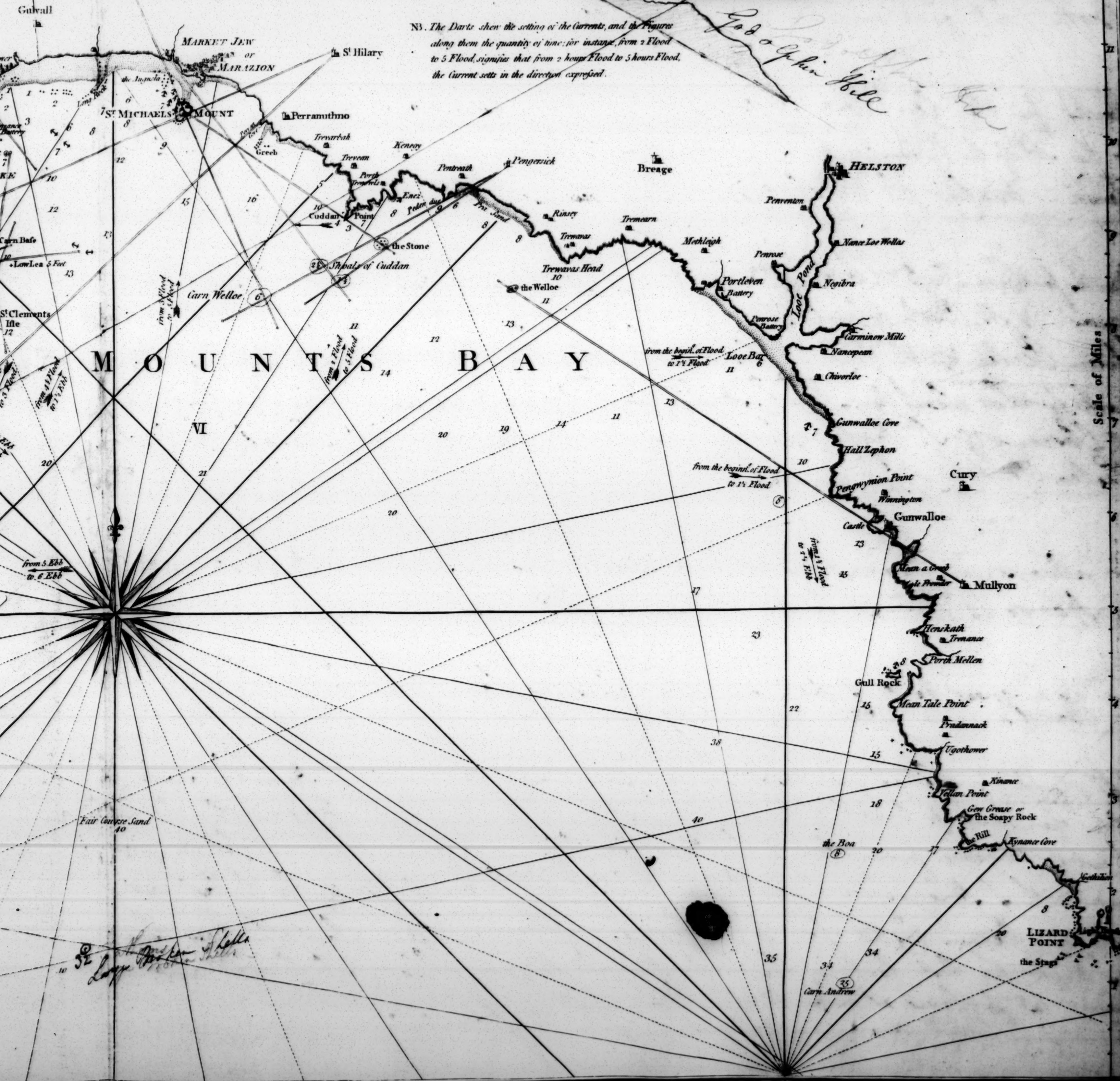
Appearance of Mounts Bay, the Mount bearing N. N. W. about 4 Leagues distant.



Appearance of the Mount bearing N.E. by E. 1/2 E. 1 League & distant.



N.B. The Darts show the setting of the Currents, and the Figures along them the quantity of time; for instance, from 2 Flood to 5 Flood, signifies that from 2 hours Flood to 5 hours Flood, the Current sets in the direction expressed.



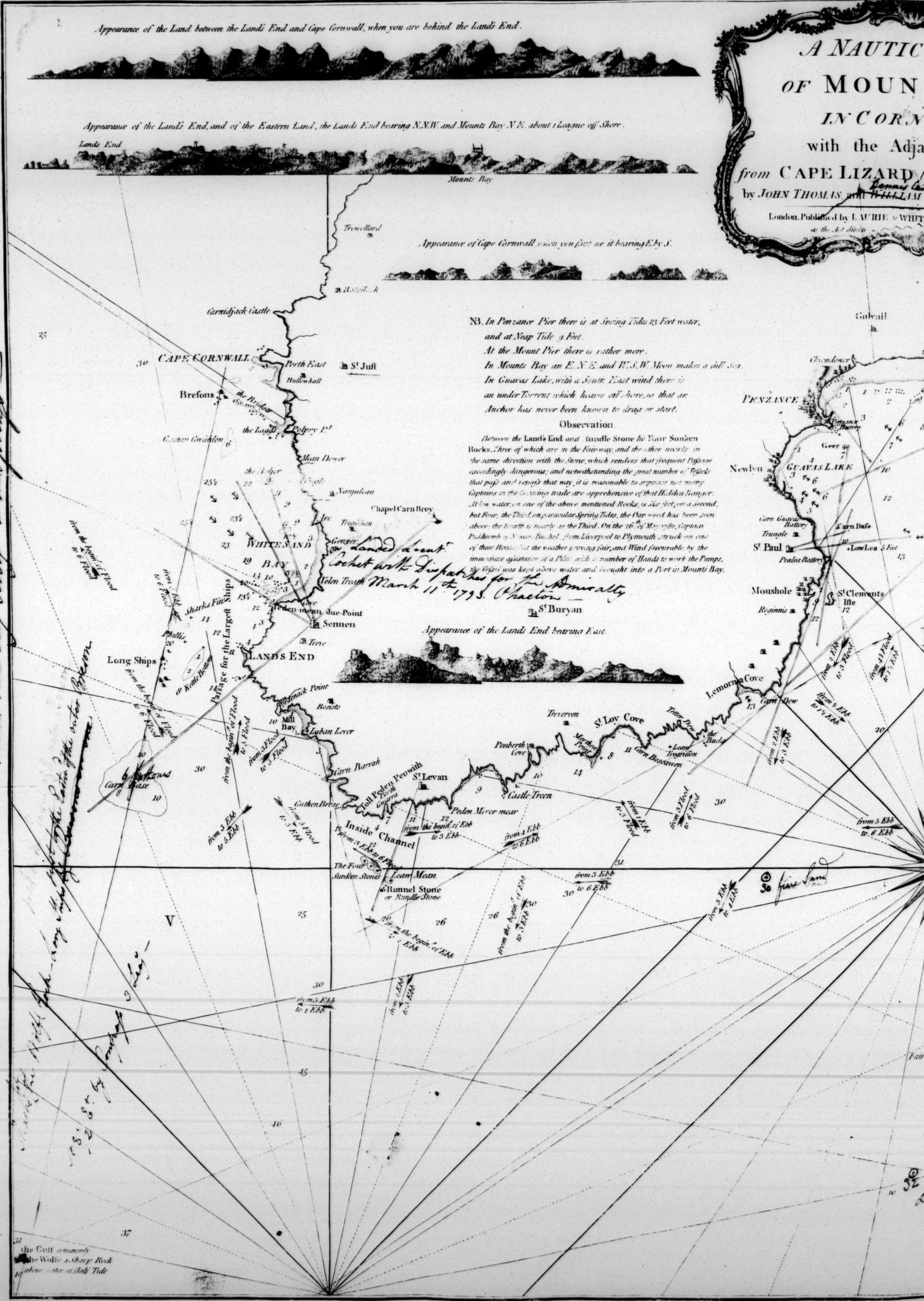
Scale of Miles



*Marks for clearing the Runnelstone*

*Highest Part of Godolphin Hill open off Horn - Does clear the Runnelstone to the South East  
 { Lowest part of Cliff inside of Lands End, open with Toll-Paden Pen with a sail's breadth clear the Runnelstone to the S.W.*

**A NAUTICAL  
 OF MOUNTAINS  
 IN CORNWALL  
 with the Adjuncts  
 from CAPE LIZARD  
 by JOHN THOMAS and WILLIAM  
 London, Published by L. AURIE & WHITE  
 at the Artillery**



*Appearance of the Land between the Lands End and Cape Cornwall, when you are behind the Lands End.*

*Appearance of the Lands End, and of the Eastern Land, the Lands End bearing N.W. and Mounts Bay N.E. about 1 League off Shore.*

*Appearance of Cape Cornwall when you first see it bearing E. by S.*

*N.B. In Penzance Pier there is at Spring Tides 13 Feet water,  
 and at Neap Tide 9 Feet.*

*At the Mount Pier there is rather more.*

*In Mounts Bay an E.N.E. and P.S.W. Moon makes a dull Sea.*

*In Guavas Lake, with a South East wind there is  
 an under Torrent which heaves off shore, so that an  
 Anchor has never been known to drag or start.*

**Observation**

*Between the Lands End and Runnel Stone be Four Sunken  
 Rocks, three of which are in the fair way, and the other nearly in  
 the same direction with the same, which renders that frequent Passage  
 exceedingly dangerous, and notwithstanding the great number of Buoys  
 that pass and repeat that way, it is reasonable to suppose not many  
 Captains in the Guavas trade are apprehensive of that hidden danger.  
 It is a water on one of the above mentioned Rocks, is six feet on a second,  
 but four, the third, on particular Spring Tides, the Cap wood has been seen  
 above the fourth is nearly as the third. On the 26. of May 1780, Captain  
 Piddington of the Ship "The Fish", from Liverpool to Plymouth, struck on one  
 of these Rocks, but the weather proving fair, and Wind favourable, by the  
 immediate assistance of a Pilot, with a number of Hands to work the Pumps,  
 the Ship was kept above water and brought into a Port in Mounts Bay.*

*Appearance of the Lands End bearing East*

*The Corn Pubs in dangerous Place the breakers, being the  
 Tides run very strong at the Spring*

*From the North East - a very strong current of the water  
 from the North East - a very strong current of the water  
 from the North East - a very strong current of the water*

*the Gulf currents  
 the Wallis a sharp Rock  
 above water at High Tide*



St. Michael's Mount N.E. Good Harbour  
F. Compagn.

S. and ~~WILLIAM~~ DENYS, with Useful Additions.

by L. MURIE & WHITTLE, N<sup>o</sup> 53, Fleet Street.

let direct *May 1794*

**Ludgvan**

*Appearance of the Land between the Lizard and the Lands End, the Lizard bearing E. by N. and Mount's Bay N.*

*Island*

*Appearance of Mounts Bay, the Mount bearing N. N. W. about 4 Leagues distant*

*S<sup>t</sup> Michael's Mount*

*Appearance of the Mount bearing N.E. by E  $\frac{1}{2}$  E. 1 league  $\frac{1}{2}$  distant.*

N3. The Darts shew the setting of the currents, and the Figures along them the quantity of time; for instance, from 2 Flood to 5 Flood, signifies that from 2 hours Flood to 5 hours Flood, the current sets in the direction expressed.

Red & Yellow Bill

### Scale of Miles

32 Large Broken Shells



Keep a Village that stands on the Black Head, open of the Legard, will  
clear you of the Staggs - JPH 1802. H. M. Blanche

By { 8th March } Ancho off Penzance Mount Eb N Geer Rock NW N St. Clement's Island  
1802 } SW  $\frac{1}{2}$  W - Gulval Church N 68  $\frac{1}{2}$  E - 8  $\frac{1}{2}$  fathoms - fine Sand - An Outside  
Berth but good anchorage with an off shore Wind JPH 1802

Marks for the Geer Rock off Penzance Pier - Mr. Pascoe's House (to the N. of Newlyn) just open  
to the N. of the Chimney of the Fire Engine of an Old Tin mine on the beach - & St. Paul's Church  
Tower touching the South End of Cam Guavas Battery - JPH 1802

Marks for Cam Rafe Rock off Pealea Point - Mr. Pascoe's House right in one with Mr.  
Oxnam's & St. Paul's Church Tower open its own breadth to the Southward of the Long Hedge  
between Pealea & Newlyn - this Mark puts you right on the rock JPH 1802

Mark for Low Sea Rock - The East Side of Mr. Oxnam's House touching the West Side of  
Mr. Pascoe's & St. Paul's Church Tower, in the Edge of the first Triangular field North  
of Pealea Point - JPH 1802

By { Moor always in Guavas Lake Eb N & W S, Best Power to the W. S. - Small to the Eb }  
Open Newse to the S by E - JPH 1802

There is a great deal of foul ground in Guavas Lake, you should be choice of  
your Berth - JPH 1802

By { Marks for a very } Let go your Western Anchor (with a Westerly Wind) with a House that stands high  
good Berth - } Newlyn open twice its breadth of the Southern part of Newlyn Pier, and Dennis Castle open of the  
West part of Penzance pier, about  $\frac{1}{2}$  the Pier's length - Veer away Eb N and Let go your  
Bow with St. Hilary's Spire  $\frac{1}{2}$  way between the N. End of the Mount Pier, & the highest part of the  
Mount & Dennis Castle open to the Eastward of Penzance Pier, about the Pier's length -  
this I think the best berth in the Lake for all Winds - Clear sandy ground, and when  
moored, 5 fathoms at Low Water - JPH 1802



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see how

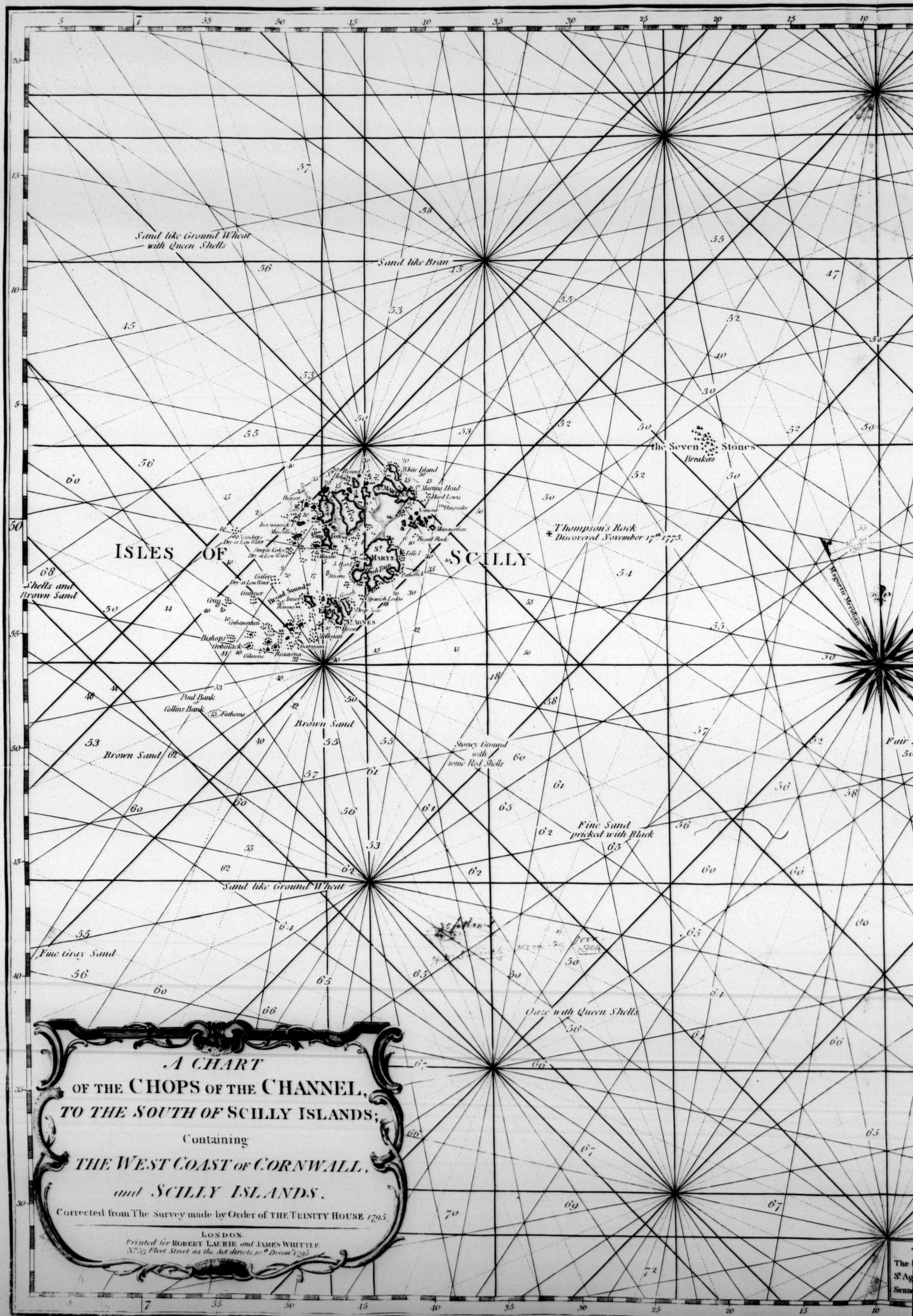


*H. M. S.*  
*1900*



H. M. S. *Lively* 9<sup>th</sup> November 1844. By Observation At Noon In Lat:  $49^{\circ} 42' N.$  St. Agnes Light  
 House at Lilloe -  $N \frac{3}{4} E$  by Compass. St. Martins Head  $N. N. E.$  by Compass. Sounded  
 in 35 fathoms Sand - St. Agnes Light House Dist. 5 Leagues. NB. This bank  
 is not laid down in any Chart - *Graham & Thompson*



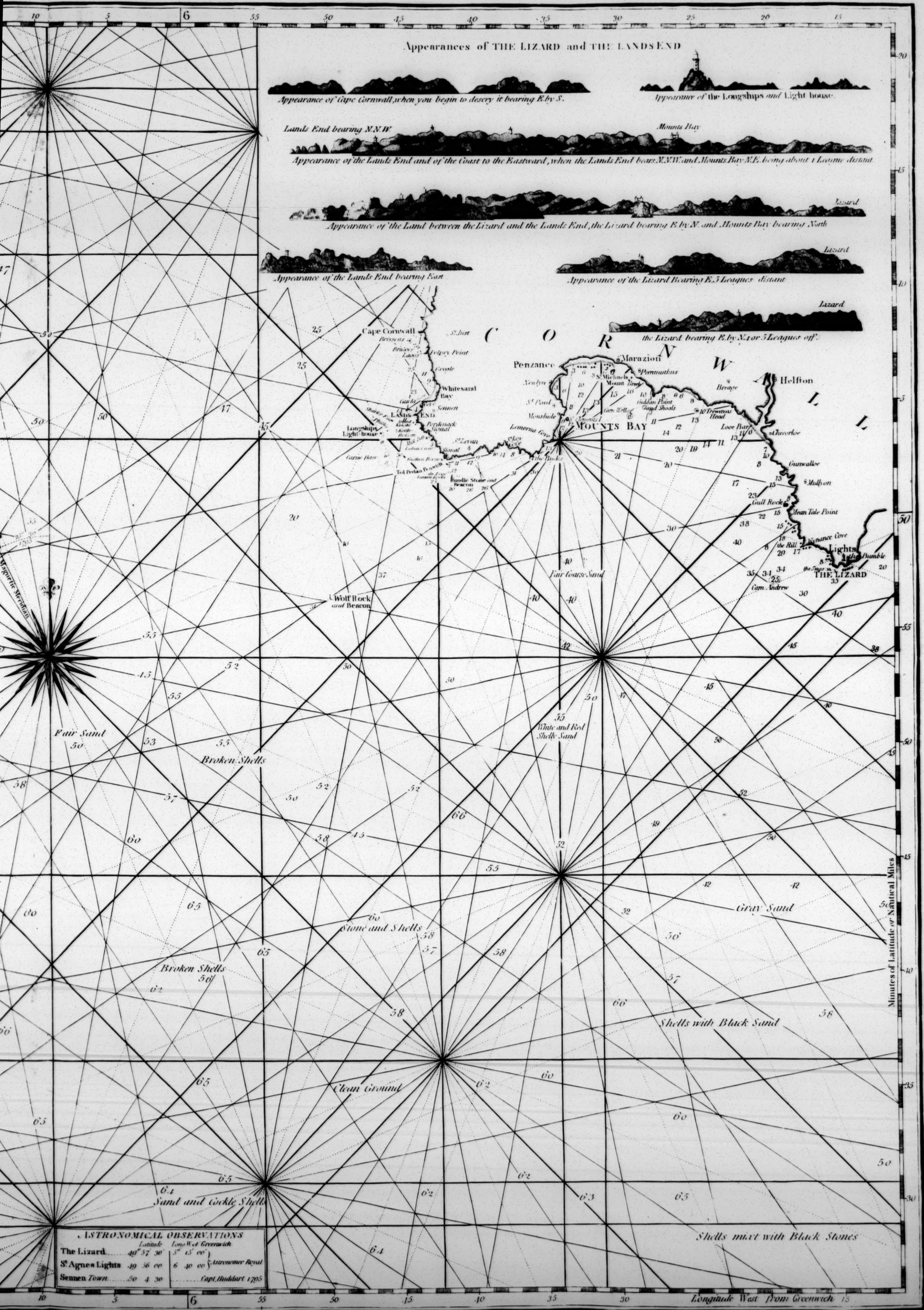


**A CHART**  
**OF THE CHOPS OF THE CHANNEL,**  
**TO THE SOUTH OF SCILLY ISLANDS;**  
Containing  
**THE WEST COAST OF CORNWALL,**  
**and SCILLY ISLANDS.**

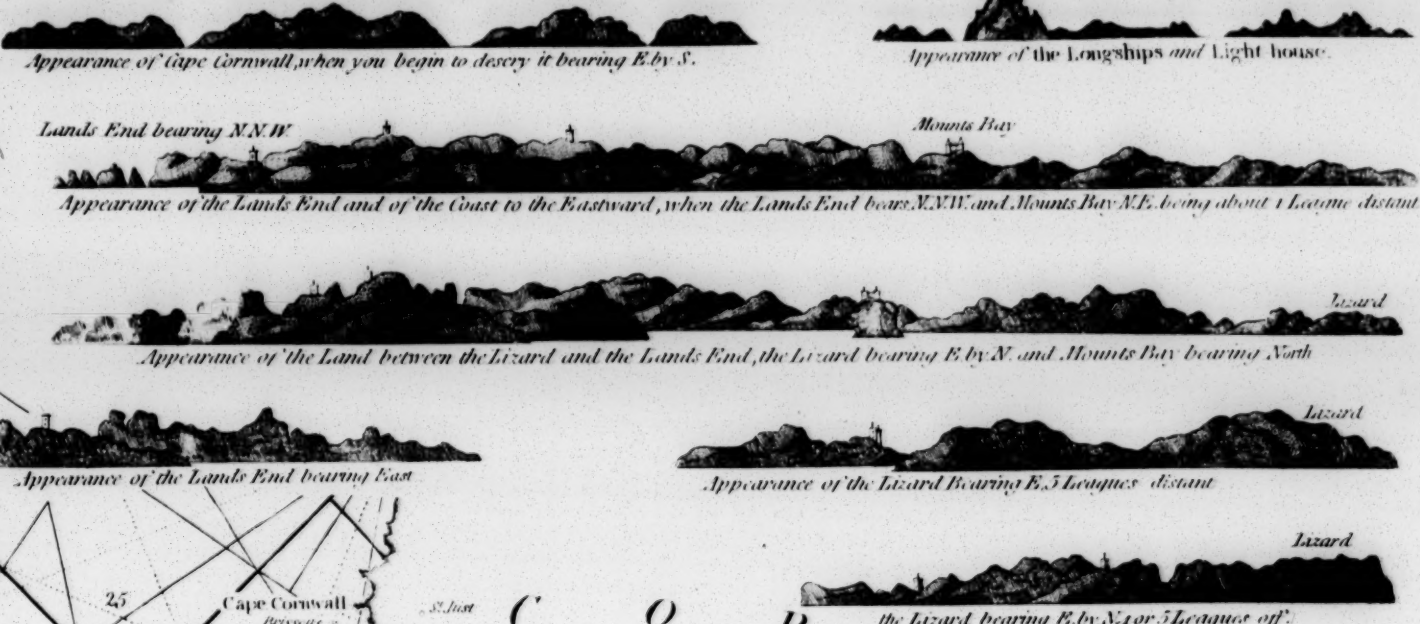
Corrected from The Survey made by Order of THE TRINITY HOUSE 1795.

LONDON.  
Printed for ROBERT LAURIE and JAMES WHITTLE  
No. 33 Fleet Street as the Act directs, in 1795.





Appearances of THE LIZARD and THE LANDEND



Appearance of Cape Cornwall, when you begin to descry it bearing E. by S.

Appearance of the Longships and Light house.

Lands End bearing N.N.W.

Mounts Bay

Appearance of the Lands End and of the Coast to the Eastward, when the Lands End bears N.N.W. and Mounts Bay N.E. being about 1 League distant

Appearance of the Land between the Lizard and the Lands End, the Lizard bearing E. by N. and Mounts Bay bearing North

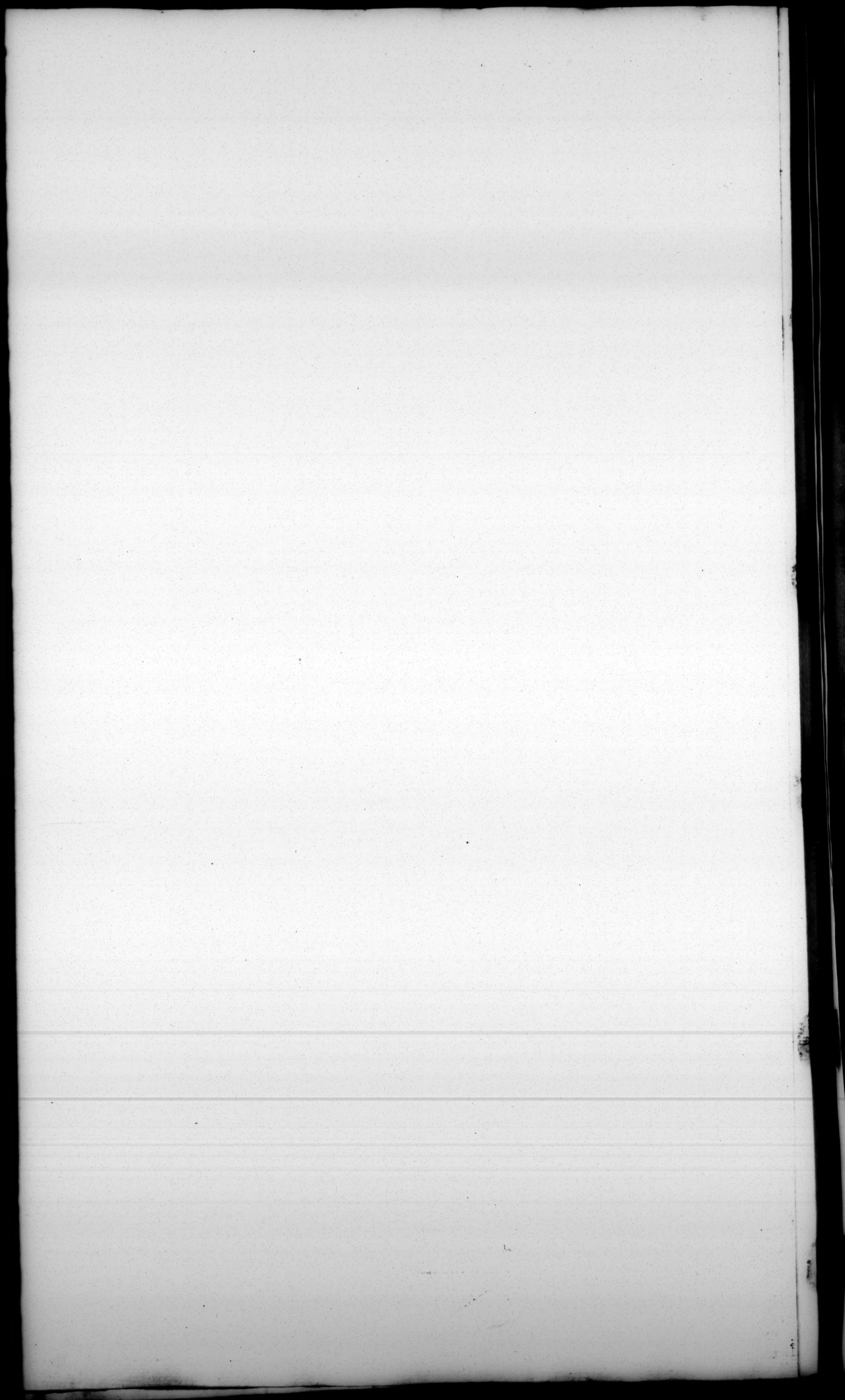
Appearance of the Lands End bearing East

Appearance of the Lizard bearing E. 5 Leagues distant

the Lizard bearing E. by N. 4 or 5 Leagues off

ASTRONOMICAL OBSERVATIONS			
	Latitude	Long. West of Greenwich	
The Lizard	49° 57' 30"	5° 15' 00"	Astronomer Royal Capt. Muddart 1795
St Agnes Lights	49° 56' 00"	6° 40' 00"	
Sennen Town	50° 4' 30"	5° 40' 00"	

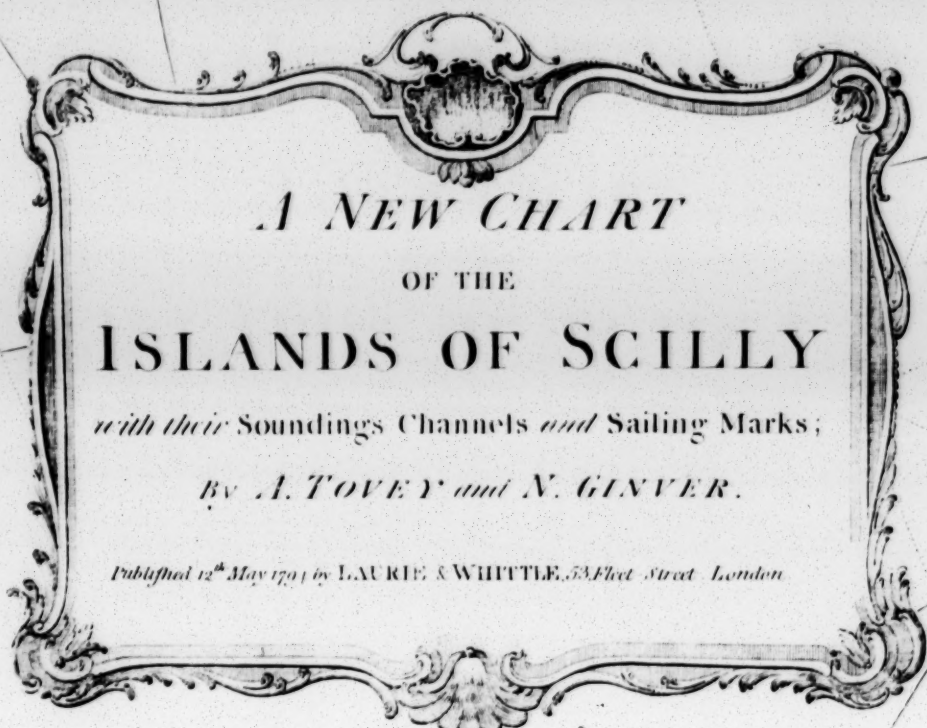






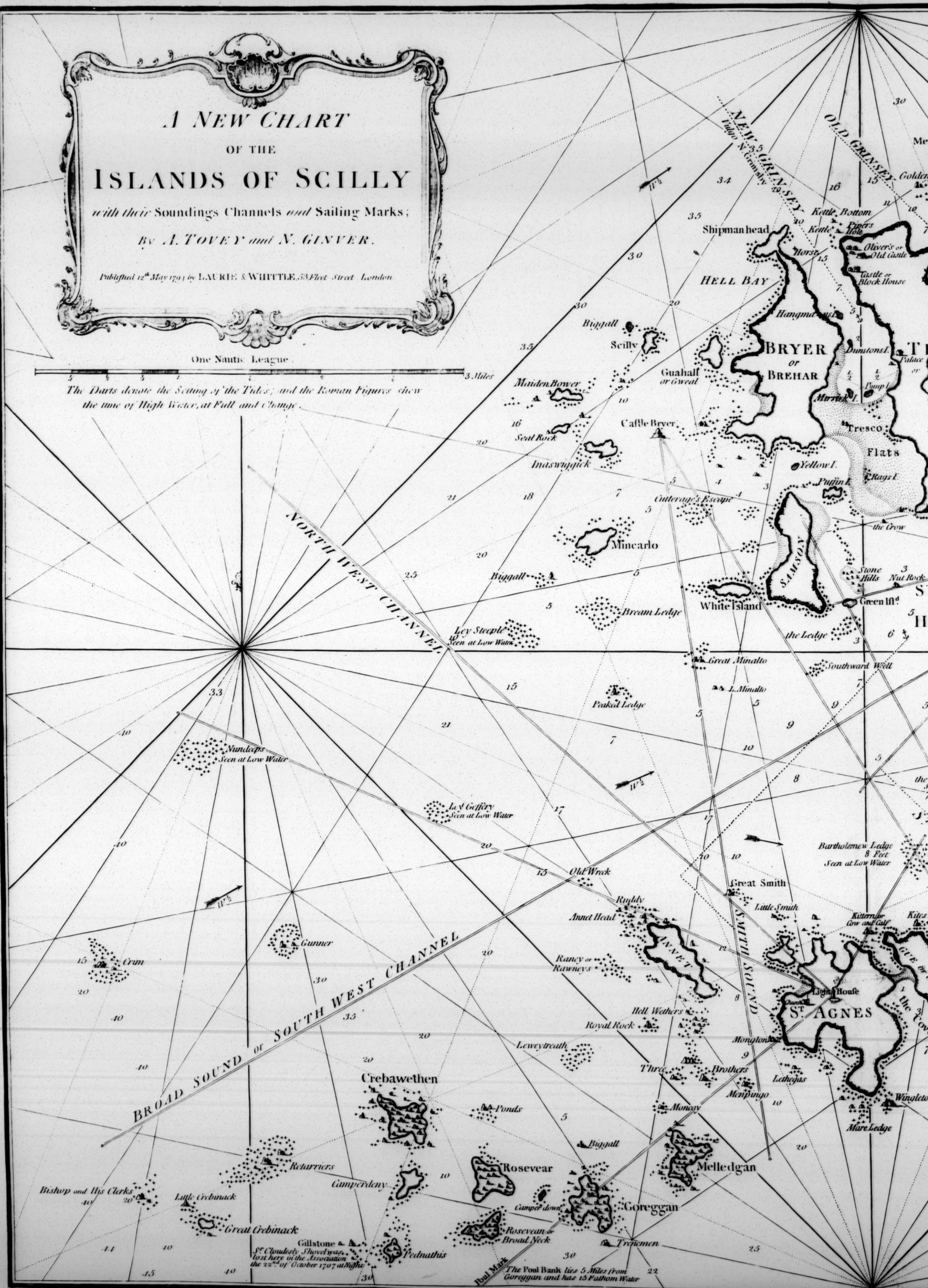






One Nautic League

The Darts denote the Setting of the Tides; and the Roman Figures show the time of High Water, at Full and Change.







Great Crow  
Point 2 1/2 fms  
2

Two appearances of Scilly Islands are so widely separated as to mislead that the positions described above are incorrect -

Very unlike in 1811 -











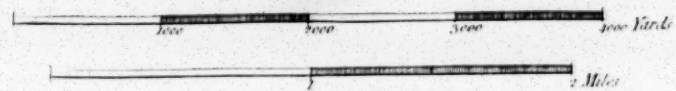
References.

- A. Bicton Point Battery for Sixteen 24 Pounders, Six 6 Pounders, with Lodgings &c. for 150 men.
- B. Cril or Dale Point Battery for Six 24 Pounders, Two 6 Pounders with Lodgings &c. for 50 men.
- C. West Nangle Point Batteries for Eighteen 24 Pounders & Six 6 Pounders, divided into three Fires, with Lodgings &c. for 150 men.
- D. Popton Point Battery for Twelve 24 Pounders & Four 6 Pounders with Lodgings &c. for 100 men.
- E. Patter Church Point Battery for Six 24 Pounders & Four 6 Pounders with Lodgings &c. for 50 men.
- F. Nangleland Battery for Six 24 Pounders, Six 6 Pounders and Barracks for 50 men.
- G. Place where the Floating Battery is proposed to be moored.

# A PLAN OF MILFORD HAVEN IN PEMBROKE SHIRE,

with the Fortifications Intended.

London, Printed for ROBERT SAYER, Map & Chart Seller, A733 Fleet Street, as the Act directs June 10<sup>th</sup> 1786.







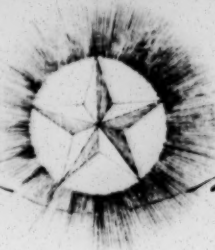












A NEW AND ACCURATE CHART  
OF THE  
**NORTH OR GERMAN SEA,**  
WITH THE SKAGERACK AND ENTRANCE OF THE CATTEGAT;  
extending from THE STRAITS OF DOVER to THE ISLES OF SHETLAND on the West Side,  
and to BERGEN, THE NAZE OF NORWAY, and CHRISTIANIA on the East Side.  
Delineated from Actual Observations  
By CAPT<sup>n</sup> JOHN HAMMOND.  
with many useful Additions and Improvements  
From CAPT<sup>n</sup> WILLIAM PRICE and CAPT<sup>n</sup> GEORGE WILSON.

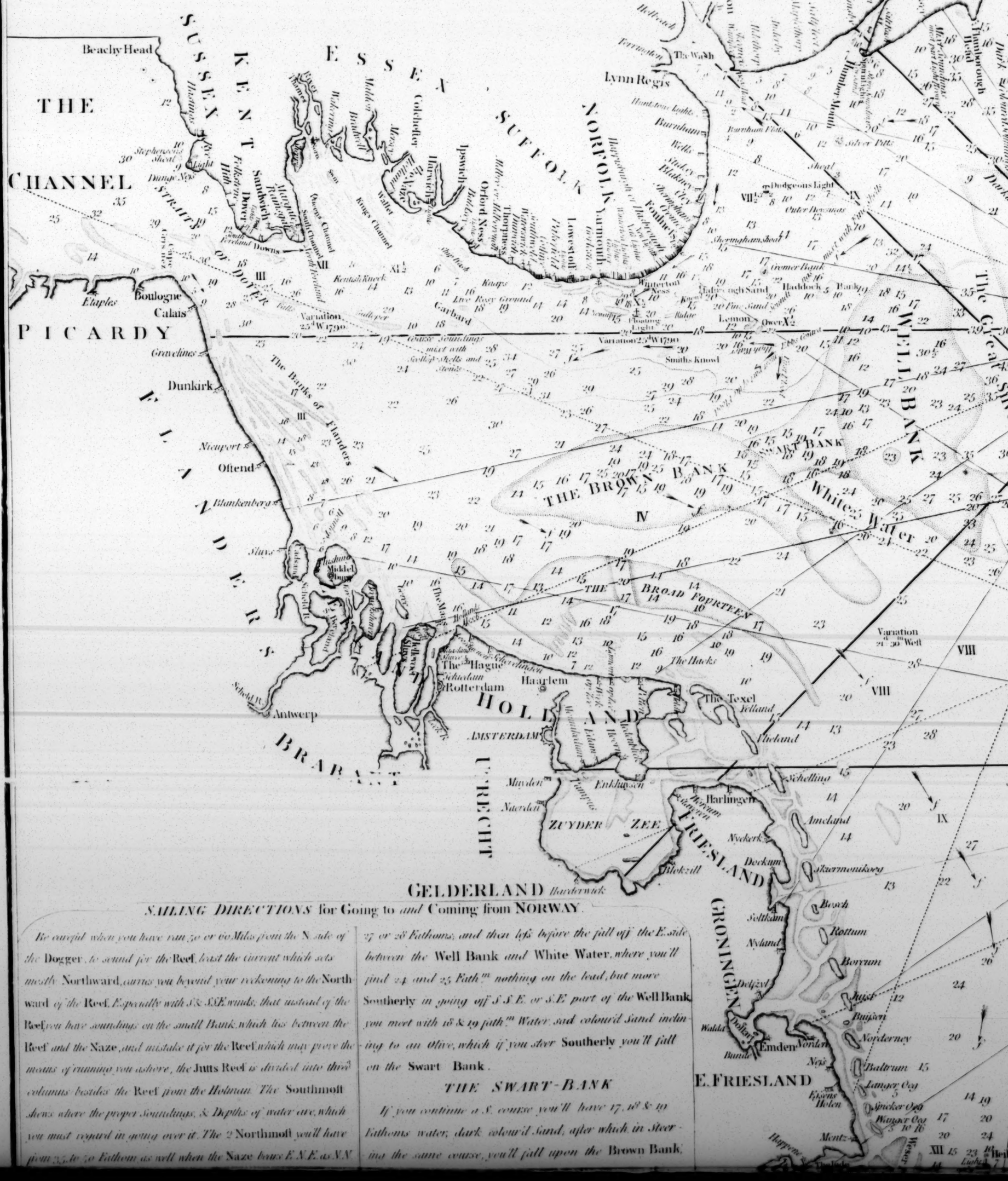
LONDON

Published by LAURIE & WHITTIE, 53 Fleet Street.  
12 May 1794.

E N G L

YORKSHIRE

LINCOLNSHIRE



**SAILING DIRECTIONS for Going to and Coming from NORWAY.**

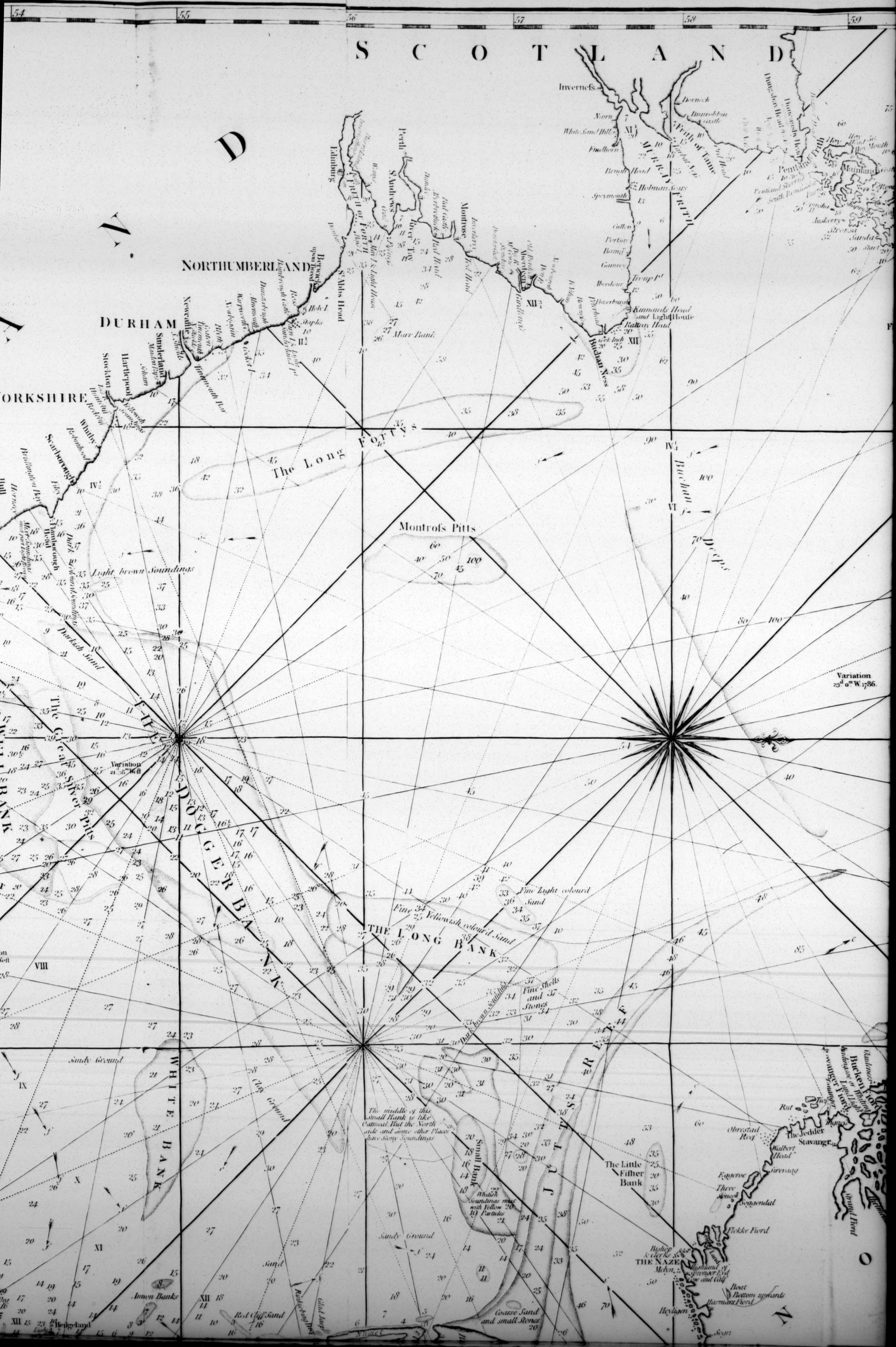
Be careful when you have run 50 or 60 Miles from the S side of the Dogger, to stand for the Reef, lest the current which sets mostly Northward, carries you beyond your reckoning to the Northward of the Reef. Especially with S.S.E. winds, that instead of the Reef you have soundings on the small Bank, which lies between the Reef and the Naze, and mistake it for the Reef, which may prove the means of running you ashore, the Juts Reef is divided into three columns besides the Reef from the Holman. The Southmost shows where the proper Soundings, & Depths of water are, which you must regard in going over it. The 2 Northmost you'll have from 22 to 50 Fathoms as well when the Naze blows E.N.E. as V.V.

27 or 28 Fathoms, and then left before the fall off the E. side between the Well Bank and White Water, where you'll find 24 and 25 Fathoms nothing on the lead, but more Southerly in going off S.S.E. or S.E. part of the Well Bank you meet with 18 & 19 fathoms Water, and coloured Sand inclining to an Olive, which if you steer Southerly you'll fall on the Swart Bank.

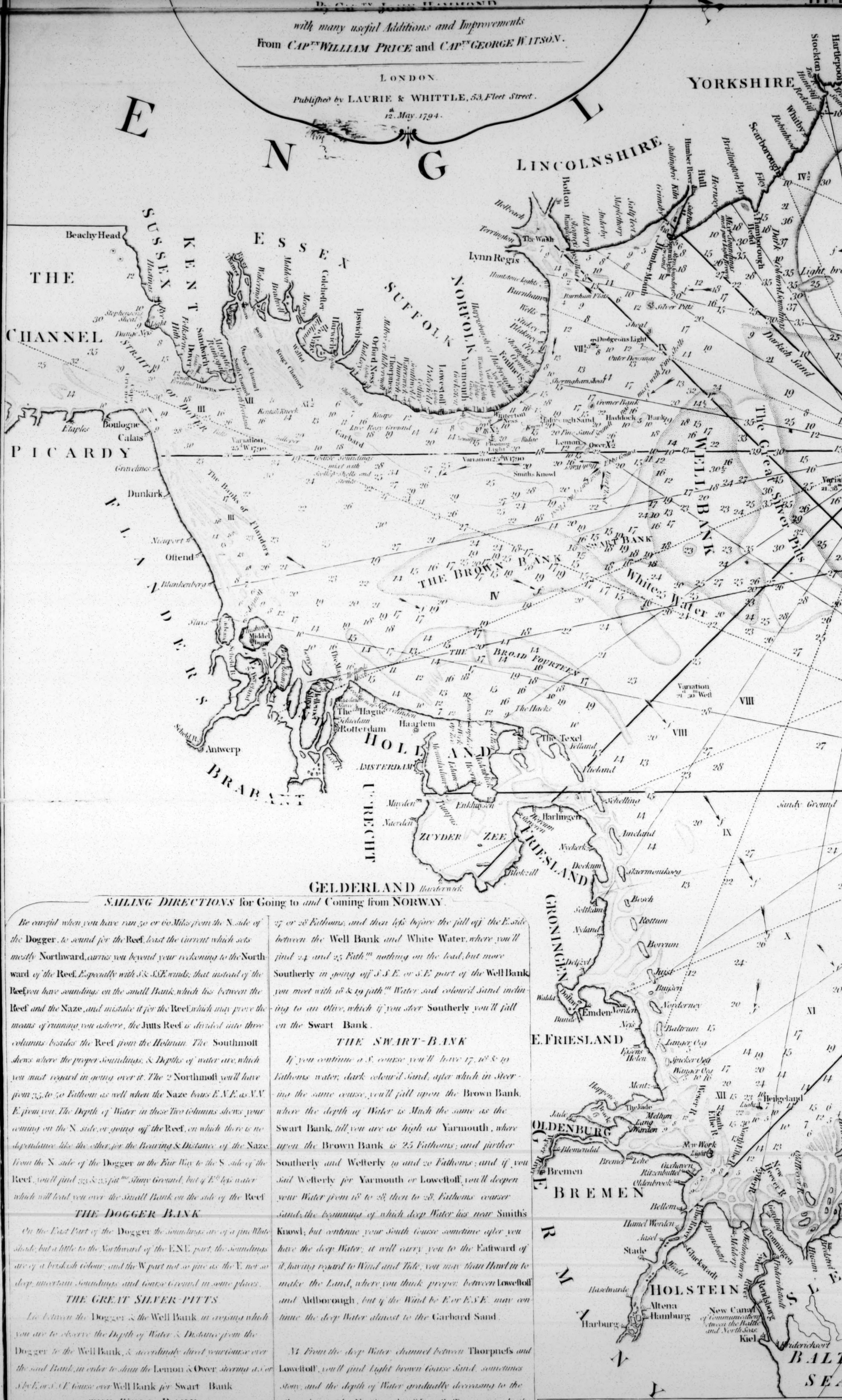
**THE SWART-BANK**

If you continue a S. course you'll have 17, 18 & 19 Fathoms water, dark coloured sand, after which in steering the same course, you'll fall upon the Brown Bank,









**SAILING DIRECTIONS for Going to and Coming from NORWAY.**

Be careful when you have run 30 or 40 Miles from the N. side of the Dogger, to sound for the Reef, lest the current which sets mostly Northward, carries you beyond your reckoning to the Northward of the Reef. Especially with S. & S.E. winds, that instead of the Reef you have soundings on the small Bank, which lies between the Reef and the Naze, and mistake it for the Reef, which may prove the means of running you ashore, the Jutts Reef is divided into three columns besides the Reef from the Helman. The Southmost shows where the proper soundings, & Depths of water are, which you must regard in going over it. The 2 Northmost will have from 35 to 50 Fathom as well when the Naze bears E.N.E. as E.V. E. from you. The Depth of Water in these two columns shows your coming on the N. side, or going off the Reef, on which there is no dependence like the other, for the Bearing & Distance of the Naze from the N. side of the Dogger in the Fair Way to the S. side of the Reef, you'll find 33 & 25 fathoms, but if E. by S. water which will lead you over the small Bank on the side of the Reef.

**THE DOGGER BANK**

On the East Part of the Dogger the soundings are of a fine white sand, but a little to the Northward of the E.N.E. part, the soundings are of a brackish colour, and the W. part not so fine as the E. nor so deep, uncertain soundings and coarse ground in some places.

**THE GREAT SILVER PITTS**

Lie between the Dogger & the Well Bank in crossing which you are to observe the Depth of Water & Distance from the Dogger to the Well Bank, & accordingly direct your course over the sand Bank, in order to shun the Lemon & Ower, steering a S. or S.W. or S.E. course over Well Bank for Swart Bank.

**THE WELL BANK**

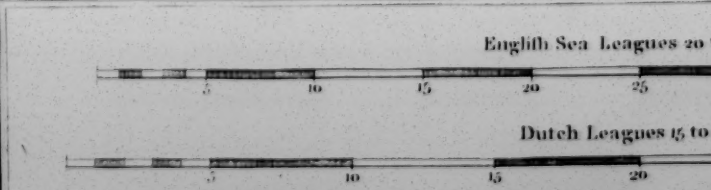
On the N. Edge you have 26, 27, & 28 fathoms, stony ground without you be E. by S. the S.W. part the same, & 22 & 23 fathoms, but on the Middle 17, 18 or more depth, sometimes fine sand, other coarse, and black specks, the soundings being variable, but steering E. you deepen your Water, and sometimes meet with coarse ground, and

27 or 28 Fathoms, and then 14 fms before the fall off the E. side between the Well Bank and White Water, where you'll find 24 and 25 fathoms, nothing on the lead, but more Southerly in going off S.S.E. or S.E. part of the Well Bank you meet with 18 & 19 fathoms Water, and coloured sand inclining to an Olive, which if you steer Southerly you'll fall on the Swart Bank.

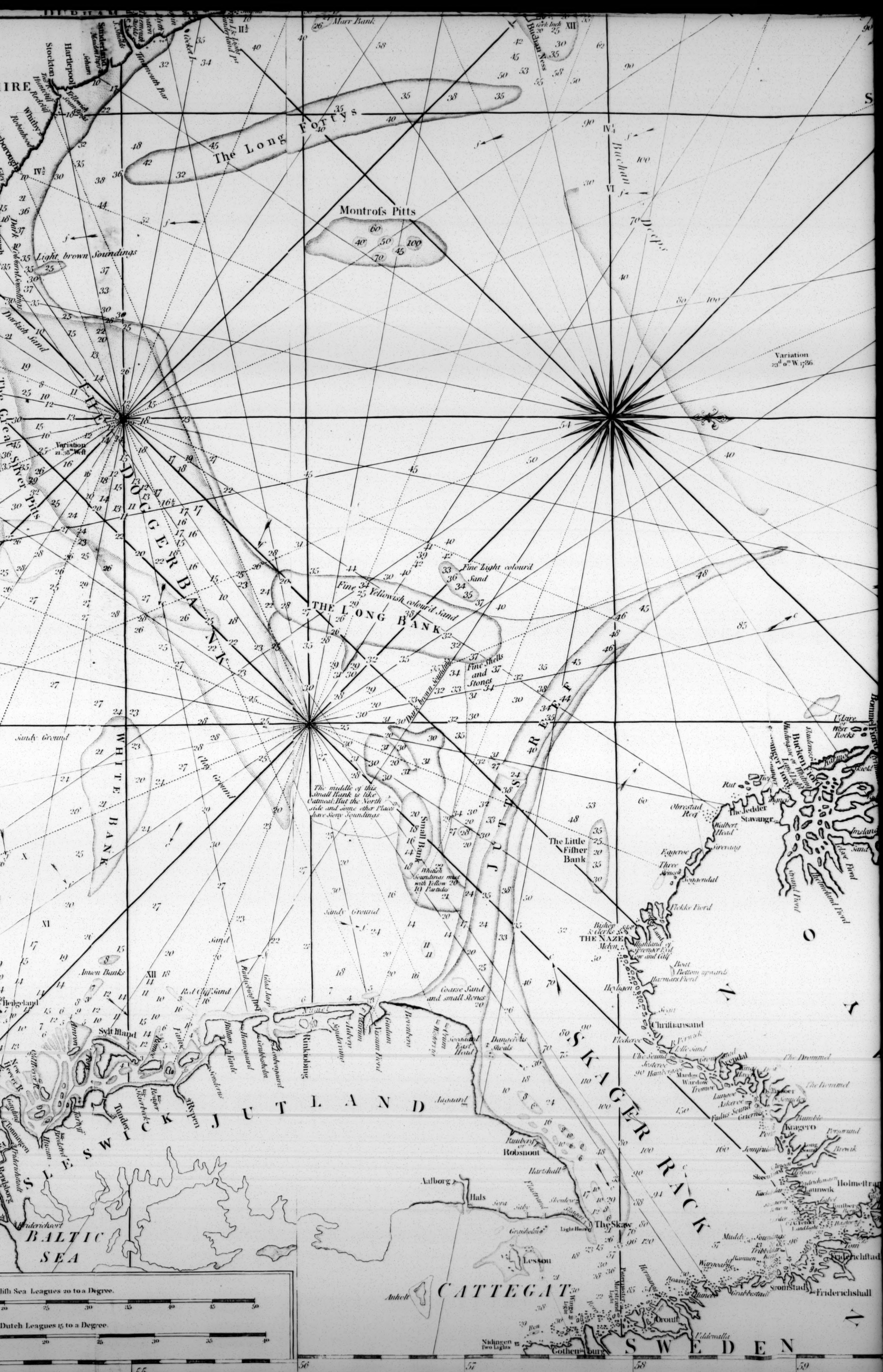
**THE SWART-BANK**

If you continue a S. course you'll have 17, 18 & 19 fathoms water, dark coloured sand, after which in steering the same course you'll fall upon the Brown Bank, where the depth of Water is much the same as the Swart Bank, till you are as high as Yarmouth, where upon the Brown Bank is 25 fathoms, and further Southerly and Westerly 10 and 20 fathoms, and if you sail Westerly for Yarmouth or Lowestoff, you'll deepen your Water from 18 to 38, then to 38 fathoms, coarser sand, the beginning of which deep Water lies near Smith's Knowl, but continue your South course sometime after you have the deep Water, it will carry you to the Eastward of it, having regard to Wind and Tide, you may then haul in to make the Land, where you think proper, between Lowestoff and Aldborough, but if the Wind be E. or E.S.E. may continue the deep Water almost to the Garbard Sand.

31. From the deep Water channel between Thorpnefs and Lowestoff, you'll find light brown coarse sand, sometimes stony, and the depth of Water gradually decreasing to the shore, but to the Northward off Lowestoff, uncertain depths, and observe if you find light brown sand, after you fall off the S. side of the Well Bank and uncertain Depths of Water, you are too far Westerly and in great Danger, there being many Overfalls.







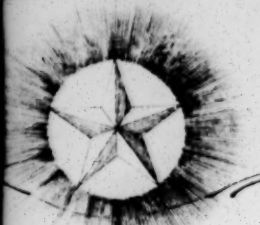


This is a detailed historical nautical chart of the Orkney Islands, Shetland Islands, and surrounding waters. The chart features a compass rose with a star-like design, indicating magnetic variation. It includes numerous place names, depth soundings, and navigational lines. The Orkney Islands are labeled 'ORKNEY ISLANDS' and the Shetland Islands are labeled 'SHETLAND ISLANDS'. The chart also shows the 'Firth of Clyde' and 'Firth of Forth'.







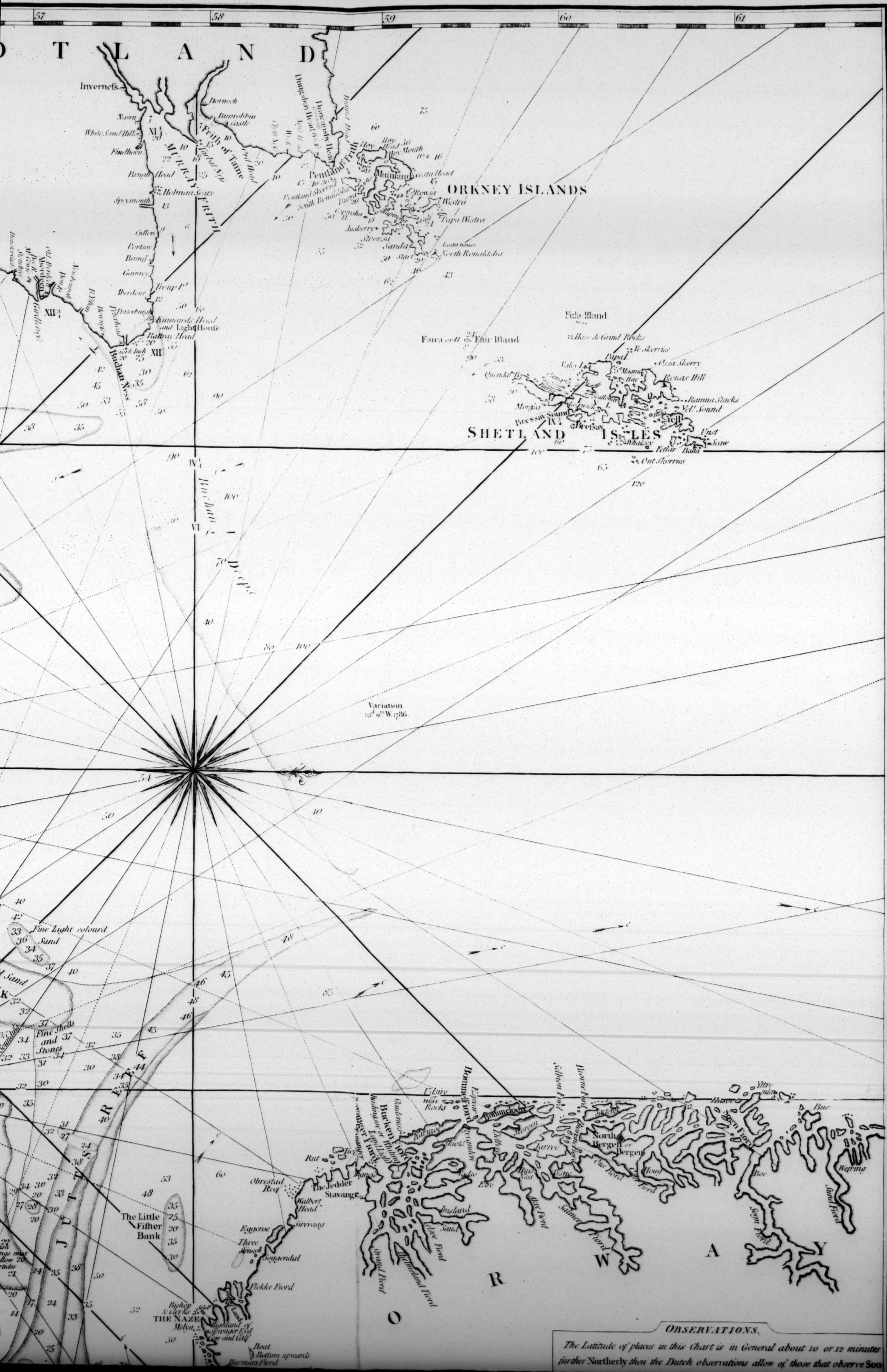


AN ACCURATE CHART  
OF THE  
GERMAN SEA,  
AND ENTRANCE OF THE CATTEGAT:  
OVER to THE ISLES of SHETLAND on the West Side,  
NORWAY, and CHRISTIANIA on the East Side:  
From Actual Observations  
By JOHN HAMMOND.  
With useful Additions and Improvements  
By JAMES PRICE and CAPT. GEORGE WATSON.

LONDON  
JAMES PRICE & WHITTLE, 53, Fleet Street.  
12 May 1794.

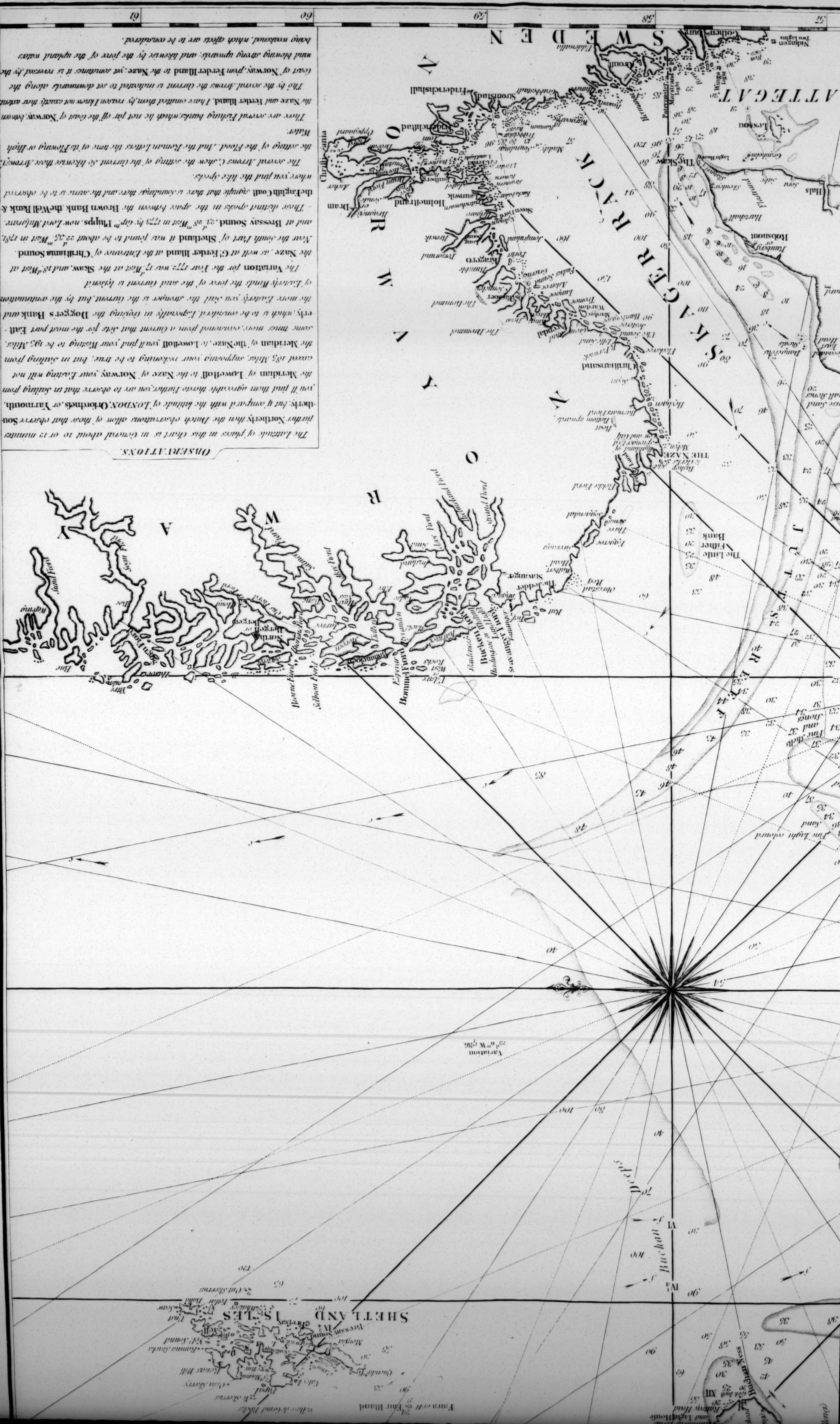






**OBSERVATIONS.**  
The Latitude of places in this Chart is in General about 10 or 12 minutes further Northerly than the Dutch observations allow of those that observe So





**OBSERVATIONS.**

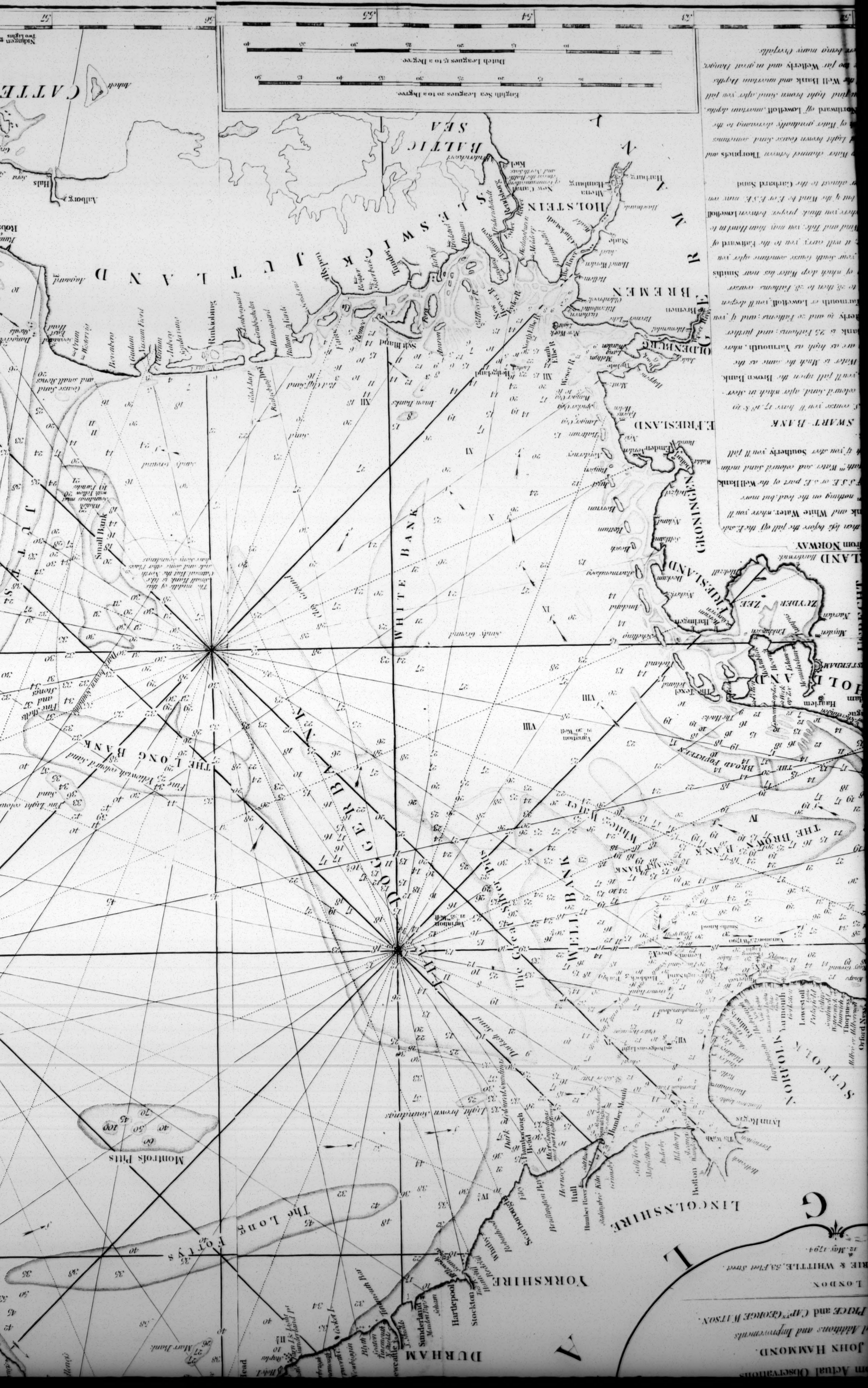
The latitude of places in this chart is in general about 10 or 12 minutes further North than the Dutch observations of these that observe South-ly; but if any way with the latitude of LONDON, Orfordness, or Yarmouth, the Meridian of Lowthoff to the Naze, your sailing will not be 183 Miles, supposing your reckoning to be true, but in sailing from the Meridian of the Naze, you will find your sailing to be 195 Miles, some times more, occasioned from a current that sets for the most part East-ly, which is to be considered, especially in trying the Dogger's Bank and the more Easterly you sail the stronger is the current, but by the continuation of Easterly Winds the force of the said current is lessened.

The Variation for the Year 1772, was 17° West at the Skaw, and 18° West at the Naze, as well as at G. Forder Island at the Entrance of Christchurch Sound. Near the south Part of Shetland it was found to be about 22° 35' West in 1781, and at Bressay Sound, 23° 28' West in 1779 by Capt. Thripps, now Lord Milford, and at Bressay Sound, 23° 28' West in 1779 by Capt. Thripps, now Lord Milford. These distinct sounds in the space between the Brown Bank the Well Bank & the English Coast, signify that there is soundings there, and the same is to be observed where you find the like speaks.

The several Sounds, when the setting of the current is likewise those, Arrowy, the setting of the Flood, and the Return follows the same of the Flowing or High Water.

There are several Fishing banks, which lie not far off the coast of Norway, between the Naze and Forder Island, I have omitted them, by reason I know not exactly their extent. Tho' by the several Arrows the current is indicated to set downwards, along the coast of Norway, from Forder Island to the Naze, yet sometimes it is reversed by the wind blowing strong upwards, and likewise by the force of the upland waters being weakened, which effects are to be considered.

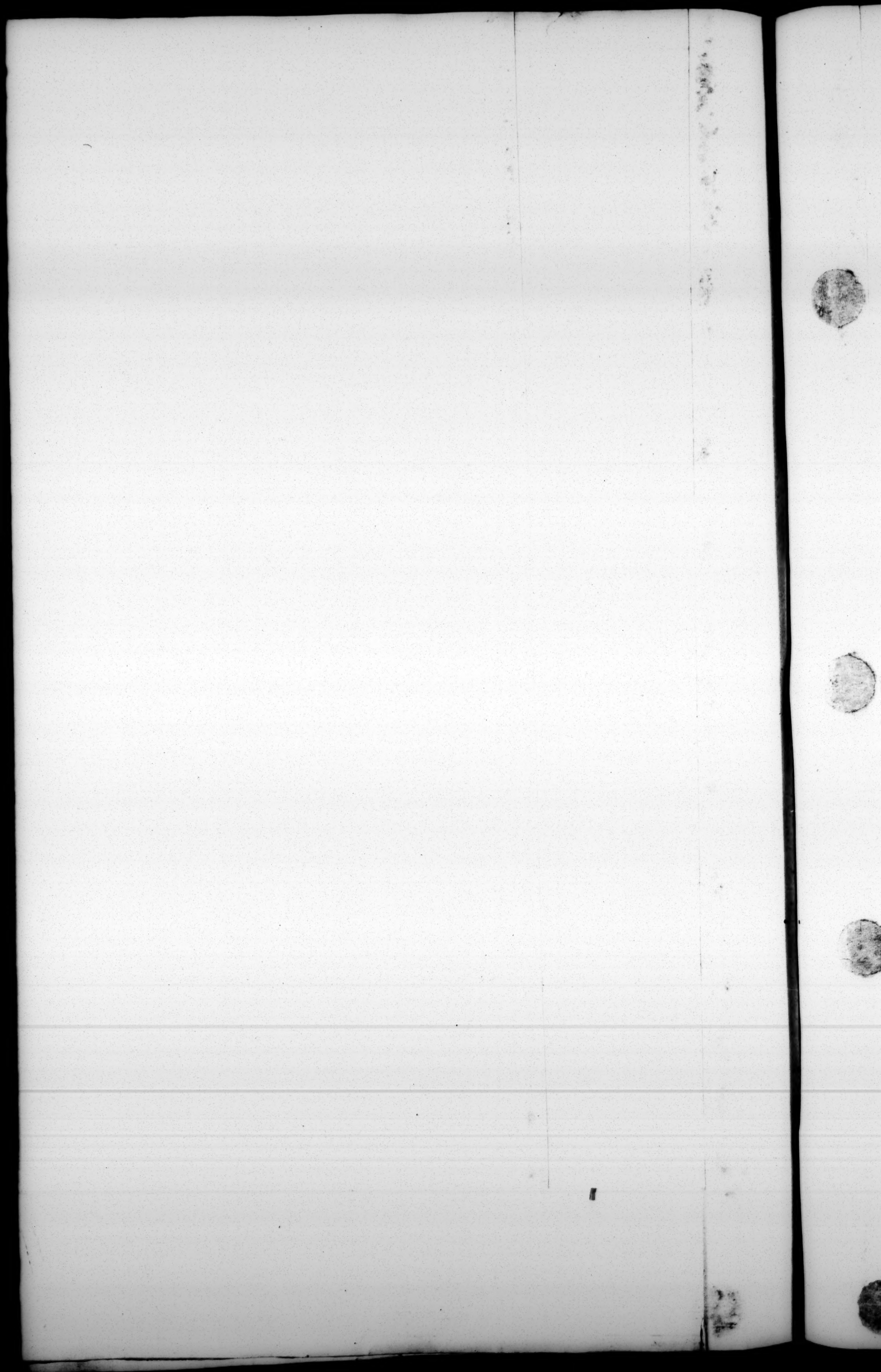




from NORWAY  
then before the full of the East  
and White Water, where you'll  
nothing on the head but more  
F.S.E. or a E part of the Well Bank  
Water and colored sand under  
of you after Southernly you'll fall  
SWART-BANK  
E. course you'll have 17, 18 & 19  
colored sand, after which in short  
you'll fall upon the Brown Bank  
Water is Much the same as the  
we as high as Varmouth, where  
Bank is 25 fathoms; and further  
Bery is 10 and 20 fathoms; and if you  
Barmouth or Lowestoft, you'll deepen  
to 25, then to 28 fathoms; aware  
of which deep Water has near Smiths  
your South Water continues after you  
it will carry you to the Eastward of  
Wind and this you may than stand in to  
there you think proper between Lowestoft  
but if the Wind be E or S.E. you may  
be almost to the Carband Sand  
Water channel between Thorpness and  
light brown Water Sand continues  
of Water gradually decreasing to the  
ward off Lowestoft, uncertain depths  
the light brown Sand after you fall  
the Well Bank and uncertain depths  
the far Westerly and in great changes  
not being many fathoms.

Actual Observations  
JOHN HAMMOND.  
of Additions and Improvements  
PRICE and CAPT. GEORGE WATSON.  
LONDON  
BIE & WHITTLE, 33 Fleet Street.  
12 May 1794.







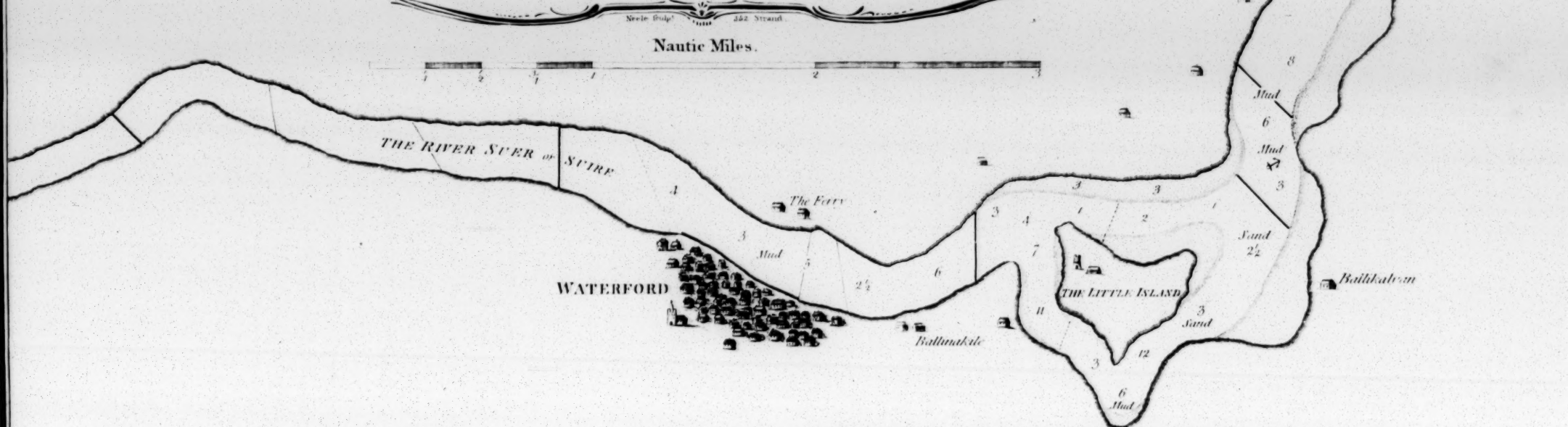




# AN ACTUAL SURVEY OF THE HARBOUR AND RIVER OF WATERFORD, AND OF THE BAY OF TRAMORE; with the ADJACENT COAST, from GREAT NEWTOWN HEAD to BAGENBON HEAD.

LONDON.

Published 14 May 1794 by LAURIE & WHITTLE, 53 Fleet Street.



## DIRECTIONS FOR WATERFORD HARBOUR

BY M<sup>r</sup> MACKENZIE.

To Fall in with Waterford Harbour, coming from the Southward or Eastward, Keep Sleanamau Mountain, V.E. 5 N by Compass till you see Hook Tower and Stand no nearer the Point on which it stands, than a Cable's Length or Two, to Avoid falling into the Rough and Irregular Streams of Tide Here. There is a Narrow Ridge of Sand about  $\frac{1}{2}$  a Mile above Creden Head, which stretches quite across the Channel, the Least Water on it with Low Spring Tides, is 10 Feet, at High Water Spring Tides, there is at Least 20 Feet on it, and at High Water, Neap Tides, 18 Feet. The Usual Anchorage for Large Vessels, is  $\frac{1}{2}$  Mile or  $\frac{3}{4}$  Mile above Passage, nearest the West Side, on 5 or 6 Fathoms Water. Here Spring Tides when Strongest run about 3 Miles an Hour, Smaller Vessels Ride in left Tide, and Smoother Water nearest the East Side.

To Sail to the Anchorage at Passage, Take the Flood Tide, or a Brisk Landing Wind, Steer for Creden Head, and keep near a Cable's Length, or Half a Cable's Length from it. From thence Steer right on Duncannon Fort, and keep about a Cable from it, then Steer North by Compass for the Church at Ballinacole, which stands on a Hill, till you see the Perch near Passage, Bearing on the Town of Passage, then Steer past the Town for the Anchorage.

There is very Good Anchorage 2 or 3 Miles above Passage, in the Channel of the River Suir, where the Stream is much weaker than at Passage. In Sailing to this Place, Avoid a Shallow Spit of Sand (Seedes Bank) which extends S.W. from Buttermilk Castle, about half over to the Opposite Side, the Least Water on this Spit, is 9 Feet, Avoid likewise a Small Bank, which lies on the South Side of Cheek Point about Two Cable's Lengths from the Shore, on which the Least Water is 9 Feet, at High Tide there will be 14 Feet upon it. If it is about Low Water, Keep the Middle between the Two Points, or rather nearer to Buttermilk Point, and you will Sail clear of it; or Keep in the Rough Stream of the Tide.

Vessels that Drive not above 10 or 12 Feet Water, may go up to the City of Waterford, where there is 2 Fathoms, the Least Water about a Ship's Length from the Quay. In Sailing to or from the City of Waterford, the Safest Channel is on the North Side of the Little Island, the Other Side is Deeper Water, but the Channel is Narrow and Windy, and subject to Eddy Winds and Tides, which renders it Difficult and Dangerous.

## DIRECTIONS FOR WATERFORD HARBOUR BY M<sup>r</sup> W. DOYLEY.

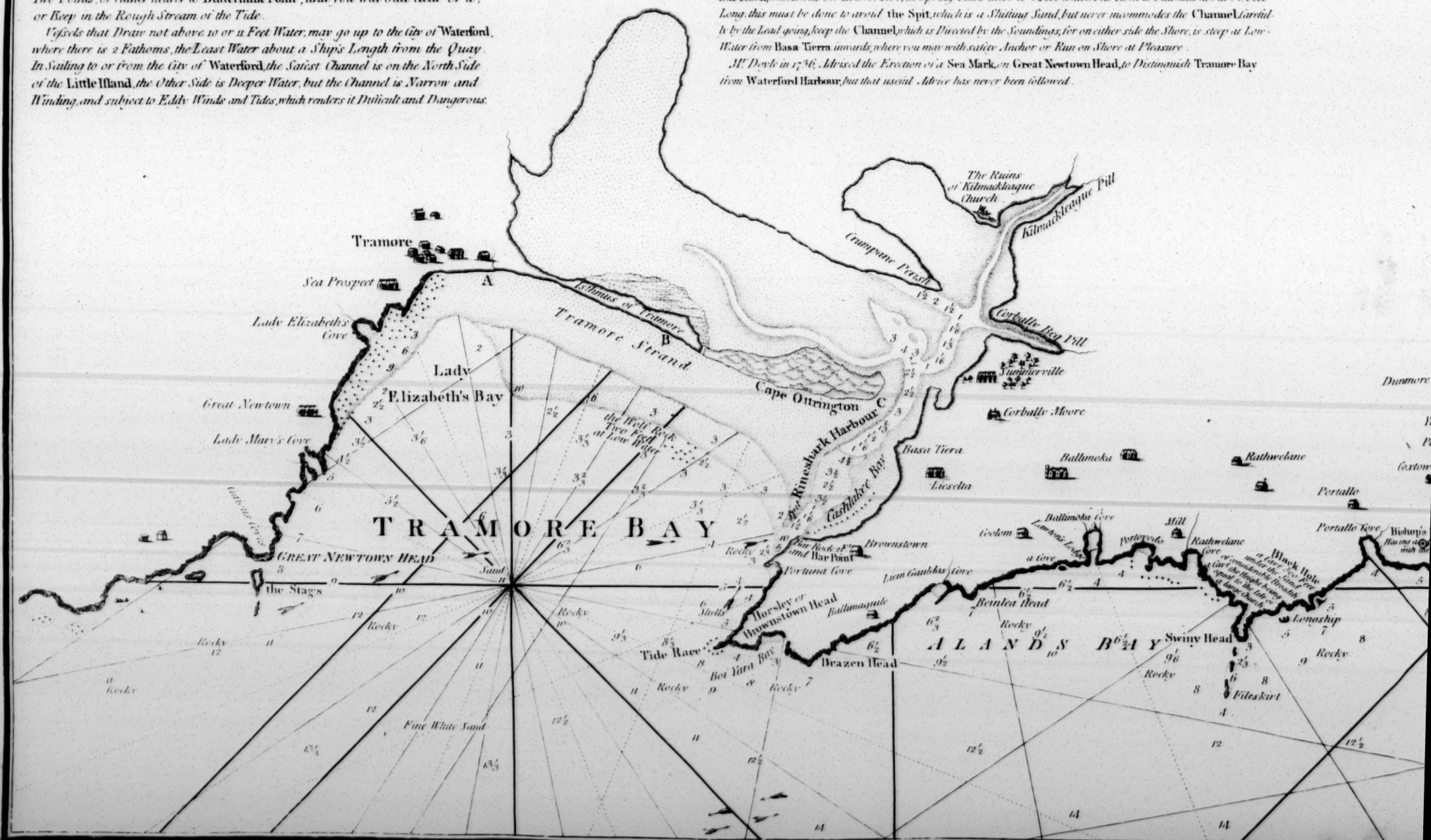
At the City of Waterford, on East or West, Moon on the Full and Change Days make Right Water, but on the Bar it is 43° Wester. The Bar is a very Narrow Ridge, scarce a good Ship's Length or Two wide. It has been known that on the Full & Change Days Strong Northerly Winds prevailing there has been less than 13 Feet water, even when it towards the Eastern Side, by some accounted the Deepest, but Southerly Winds augment the Water proportionally, and in calm Weather on the said Days at High Water you have 20 Feet, which is sufficient for Ships of Great Burthen. As a Guide to Ships by Night to Duncannon Fort, Two Lights one above the other are thereon erected. The Arrows Represent as well the Course of the Tides as that whereby Vessels may Steer into the Harbour by the Common Compass, and in 1736 (being near Creden Head, the Course for Duncannon Fort is N.E. but

the Construction of this Plan is by allowance of the Variation, so that the True Course is North Easterly 8° 45' you must carefully avoid the Spit A. Ballinacole a very Dangerous and Hard Sand, as is also Drumroe Bank, Observing when you Bring Father Hogan's House and Newtown Trees in one, that you are Entering the Narrowest part of the Channel. The Soundings are carefully laid down, and the Lead going, keep the Proper Fall Channel. What is called improperly the West Channel, is by no means practicable, nor is it advisable with Ships of Burthen, even at Flooding water, to attempt sailing over the sand Bank. The Beach is a good Mark to Avoid it, when you have Past it you arrive at Passage, where as indeed the Whole Harbour over, you have good Anchorage except where the contrary is represented.

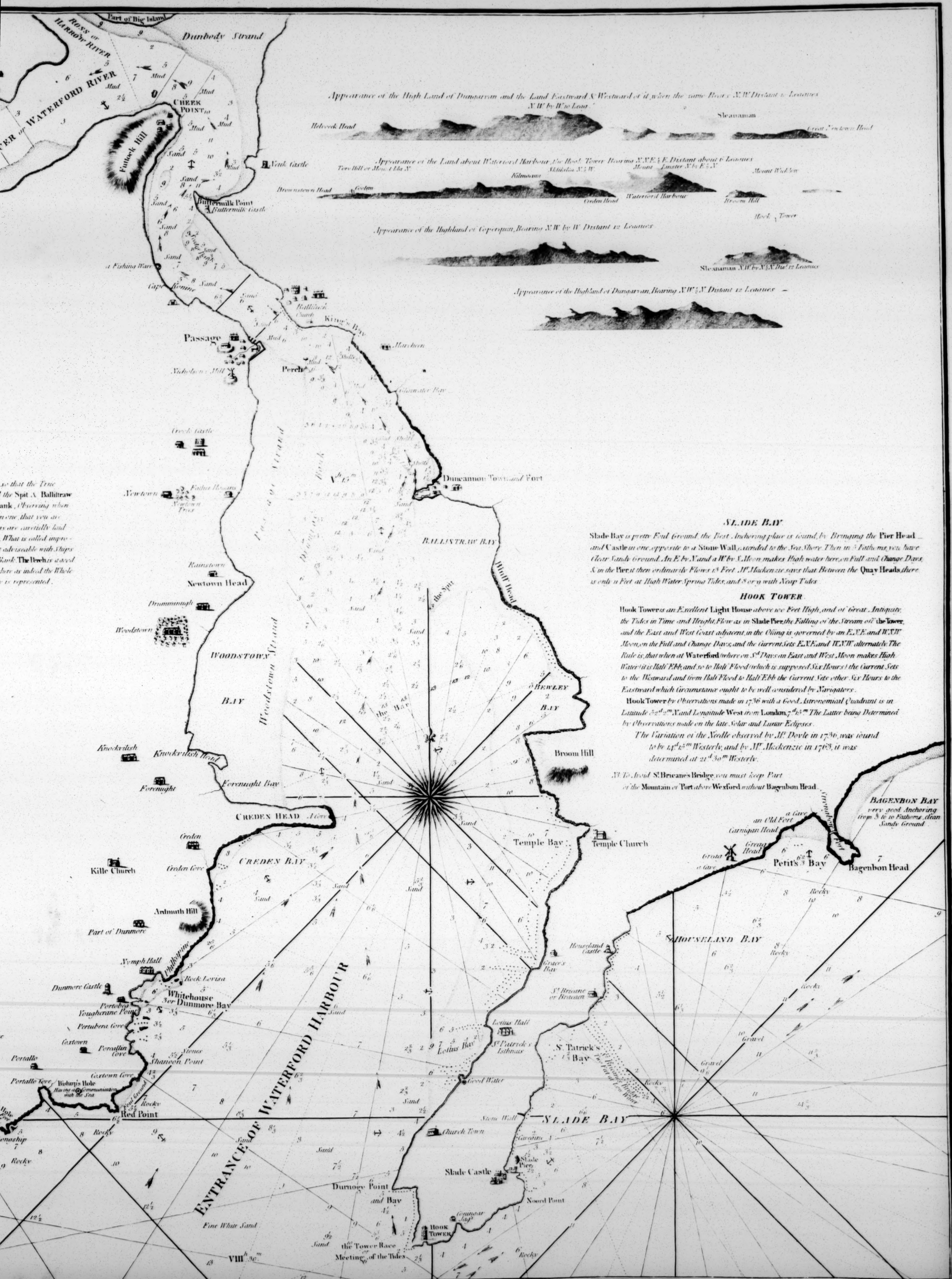
## OBSERVATIONS ON TRIMORE BAY.

Trimore Bay, notorious for Shipwrecks, ought to be carefully avoided, when Hook Tower cannot be seen in Bazy Weather. This Bay has been frequently taken for Waterford Harbour to the loss of many. The Wind Blowing hard from S.E. to S.W. rumbles in a Great Rolling Sea, which joined to a great Indraft towards Rineshark Harbour (wherein the Tide Sets with Great Force and Velocity) renders it almost impossible for Imbued Ships to Weather the Heads, and the Ground being generally on the East and West Sides, as almost over the Bay Foul and Rocky Cables are frequently cut. In this extremity, such as cannot obtain Rineshark, ought, if they possibly can, to Run on Shore between the Letters A and B, the nearer A the Better, where on a loose Stern Bough the Water Flows to a great Height. By this means Men and Goods have been saved. Between the Letters B and C it is all Sandy, and the Tide is long approaching the Shore, and there Flows very little. Ships are therefore at a great distance involved in great and terrible Breakers, so that Men are seldom saved. Such as would Sail into Rineshark Harbour, where as on Waterford Bar, it Flows the Same as to Time & Height of Water, they must keep the Eastern Shore very close on Board, and near the Bar Point, Sail over the Bar Rock, when at the Lowest Ebb, in Spring Tides there is 2 Feet water. The Rock is flat and about 50 Feet Long, this must be done to avoid the Spit, which is a shifting Sand, but never accommodates the Channel, Landing by the Lead going, keep the Channel, which is Directed by the Soundings, for on either side the Shore, is steep at Low Water from Basa Tierra inwards, where you may with safety Anchor or Run on Shore at Pleasure.

M<sup>r</sup> Doyley in 1736, advised the Erection of a Sea Mark on Great Newtown Head, to distinguish Trimore Bay from Waterford Harbour, but that usual Advice has never been followed.

















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GERMAN SEA, BAY OF BISCAY &c.

ON THE COASTS OF ENGLAND, IRELAND, SCOTLAND, HOLLAND, FLANDERS & FRANCE.

To make Use of this Table, you must Place the Flower-de-Luce, or Index, to the Day of the Moon's - Age, on the Circle of Days; and the Arrow, at the end of the Line wherein the Name is written, will point to the Time of the Tide's Flowing, or Running that Day, on the Circle of Hours.

N.B. T.F. *Stands for Tides Flowing by the Shore, or on the Ground.*

London: Printed for ROBERT SAYER, Chart-feller, N<sup>o</sup>. 5 Fleetstreet, as the Act directs.

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### Names of Places.

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